Getting to Know Public Health Services Data Workshop

April 30, 2007

Introduction

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Community Health Statistics (CHS) Unit

Today's Agenda

- Role of Public Health & CHS Unit
- Basic Information on Data Types & Measures
- Specific Public Health Services Databases
- Data Requests, Website Navigation

- Q&A

Binder Information

- Copy of all slides presented today
- Database information sheets
- Quick reference slides: who, what, when, where
- Index (Databases by topic)
    - For each topic/indicator, see page number for relevant databases
    - Page number of primary data sources in bold
    - e.g. want data on diabetes:
        - See databases: Hospital, ED, Death, CHIS, YRBS
- Flyer for Public Health Data Requests

Role of Public Health

- How many of you think about how Public Health affects your life on a daily basis?

A Day In Your Life With Public Health

San Diegans are able to live longer and healthier, thanks to the efforts of local, state and federal public health agencies.

7:30 am: Pulling on coats and gathering bags, your family heads for the car. Fastening seatbelts is an automatic habit. Public health helped pass California's seat belt and child car seat laws and promotes their use to save lives and prevent serious injuries.

7:50 am: After leaving your children at school, you drive on to work.   As you walk in the door, you notice that a new "Smoke Free Building" sign has been posted. For years, public health has been educating people about the deadly health effects of tobacco and second hand smoke.

6:30 pm: You call your family to dinner, and tell them to be sure to wash their hands before eating. Public health teaches that proper hand washing is a primary protection against disease and prevents the spread of infections.

County of San Diego, Health and Human Services Agency, Public Health Services, Community Health Statistics
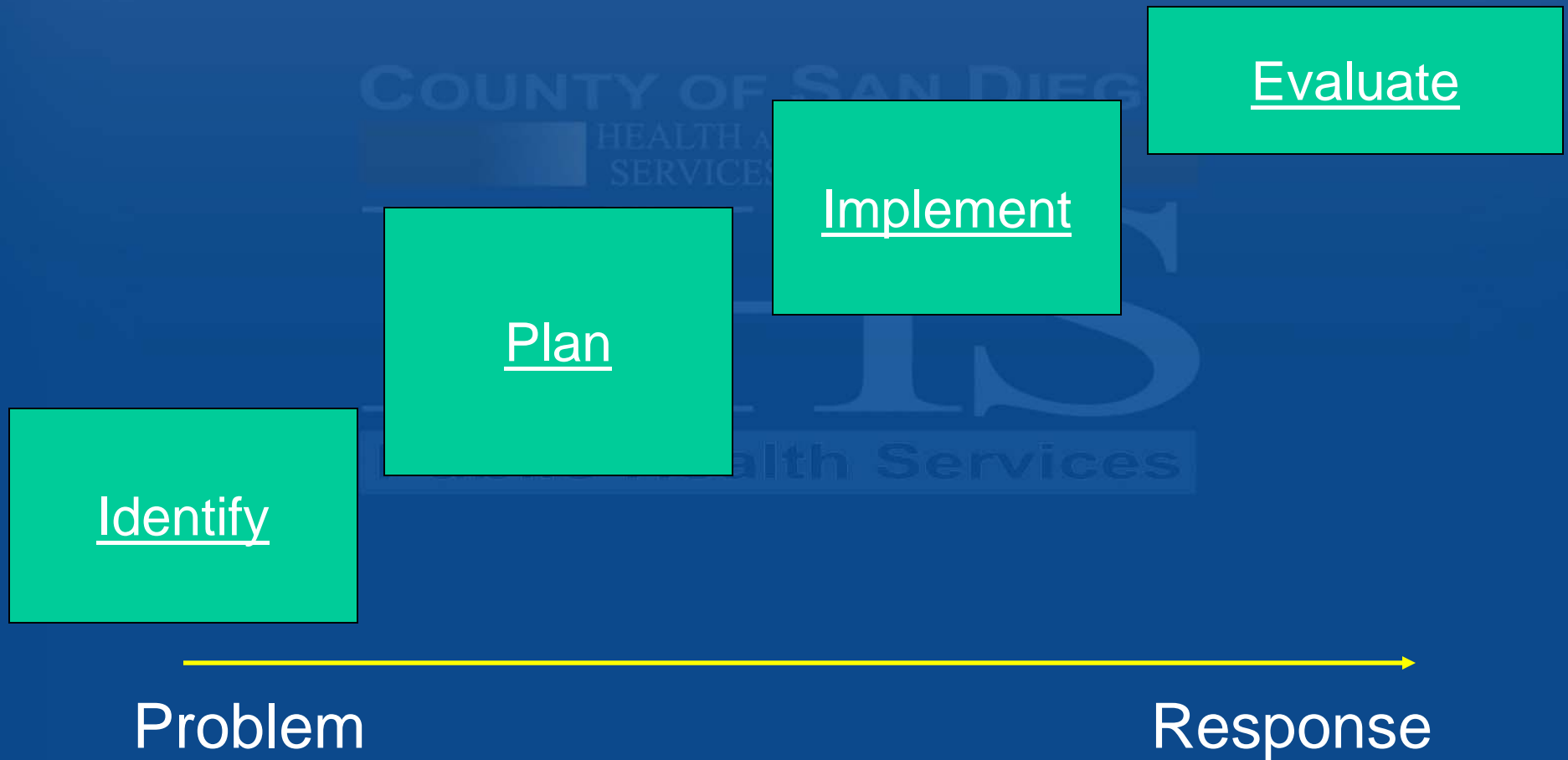
Public Health Services Data

- "A Day in Your Life with Public Health" is an excellent example of the impact of Public Health on one's personal life.

- There are many ways that data plays a role in these public health activities.

Public Health Services Data

- Data is essential to
  - Assess and monitor health problems
  - Diagnose and investigate health hazards
  - **Plan for emerging health issues**
  - Understand the extent of the problem
  - **Identify target populations**
  - Implement and evaluate educational programs
  - Develop comprehensive policies
  - **Establish priorities**
  - Administer community-wide services
  - Compare to other communities, states, etc.

Public Health Approach

Evaluate

Implement

Plan

Identify

Problem → Response

Public Health Services Data

- Today's training will help you learn more about the public health data available and how to access it

Community Health Statistics Unit Rationale & Mission

- This unit was established in August 2004 by Dr. Nancy Bowen to respond to community requests for one central office to access public health services data, the "One Stop Shopping" approach

- To provide health data to meet the needs of community partners and Health & Human Services (HHSA) agency staff.

Role of The Community Health Statistics (CHS) Unit

- "One Stop Shop" for health data
- Data Requests (619) 285-6479
- CHS Unit Website: www.sdhealthstatistics.com

Website Products

- Community Profiles
  - latest Health & Demographic Data
- Links to Public Health Services Data Reports
- Links to Other Important Data Sources
- National Health Observance Articles – collaboration with San Diego County Medical Society monthly magazine

Thank You!

- Thank you for the positive response to this training - we hope to meet your needs and make this an informative and beneficial experience

- This training is a collaborative effort with representatives from all Public Health Services Branches - thank you for sharing your expertise

Types of Databases

- Population-based
  - Virtually everyone with the illness/injury is included
  - Inclusion varies by database
- Service
  - Client data
    - Results apply to your service population
    - May not apply to all population with specific illness/injury
- Sample or Survey
  - Statistical sample
    - Representative of the population
    - Results can be applied to the population
  - Convenience sample
    - Not representative of the population
    - Easy to obtain
- Useful Non-Health Data
  - Demographic or Census
  - Law enforcement

Data Measures

- ## Numbers tell you how many
  - 25 children under age 15 in San Diego died of cancer in 2001

- ## Percents tell you a proportion of the whole
  - 90% of attendees who ate potato salad at a picnic experienced symptoms of food poisoning

- ## Rates tell you how many per a given population and allow you to compare year to year or group to group
  - The rate of children injured in MVC dropped from 321.9 per 100,000 to 295.2 per 100,000 after the implementation of the program

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Technical Definitions

- Incidence
  - The number of new events at a point in time
  - eg: "In April 2005, there were X heart attack patients in San Diego hospitals".

- Prevalence
  - The number of events during a period of time
  - eg: "During 2005, there were X people with a heart disease diagnosis in San Diego."

Timing of Data Availability

- Collection and processing takes time

For example,

- – Local processing may take 6 months
- – State processing may take 2 years

- Most recent data may be several years old

- For many programs, annual reports are available on program's website. More recent or additional data may be available by request.

Q & A

Specific Databases

Useful Non-Health Data

SANDAG Demographic Data

Beth Jarosz

SANDAG

SANDAG Background

- San Diego Association of Governments

- Purpose of SANDAG
  - Forum for regional decision making
  - Provide population size and demographics to predict resource needs
  - Used to calculate rates which are necessary to compare health issues over time and to track population trends

- Types of programs SANDAG is involved in
  - Regional Transportation Plan, Criminal Justice Clearinghouse, Energy, Demographic and Economic Forecasts, Service Bureau, Public Involvement
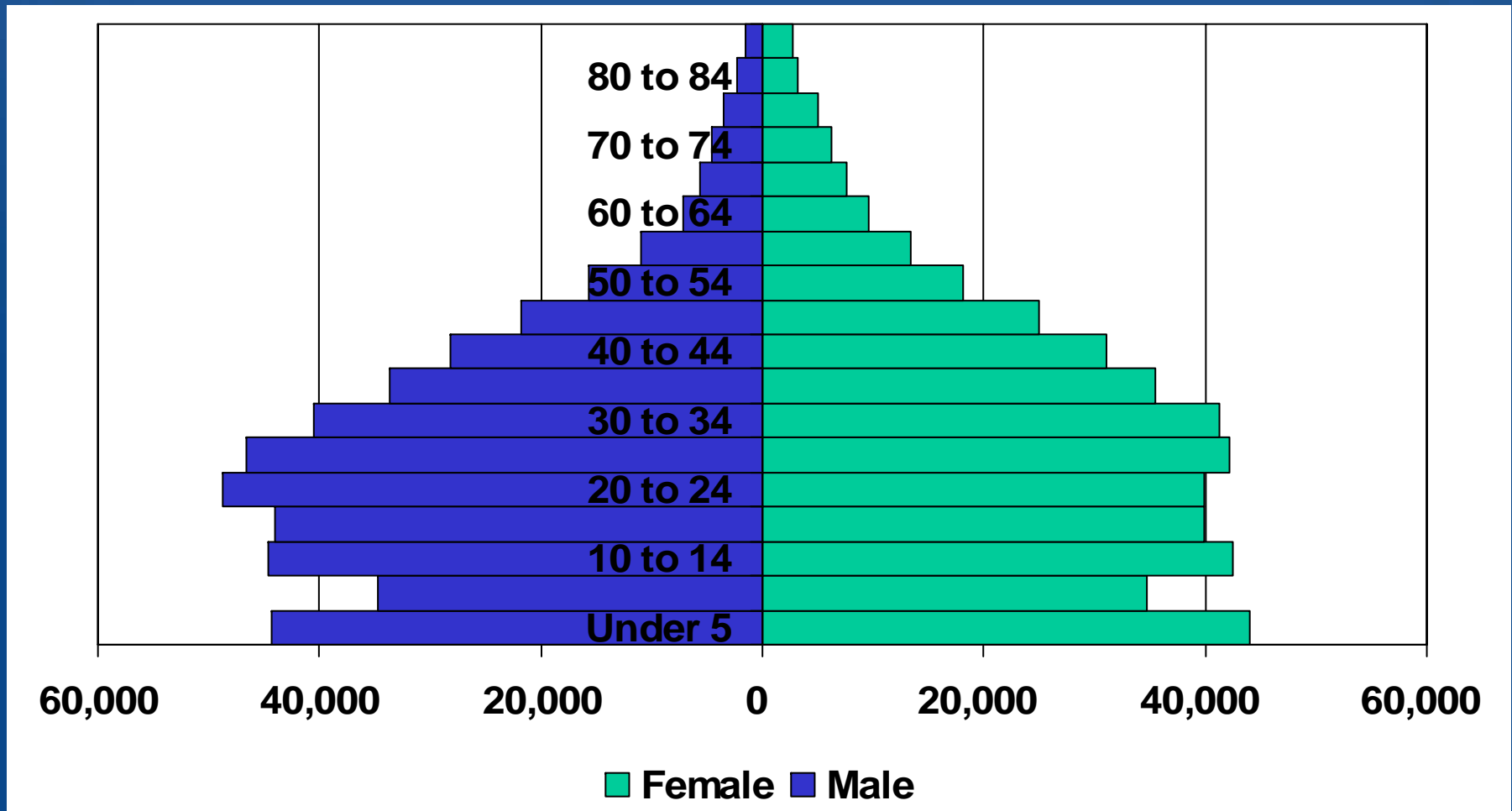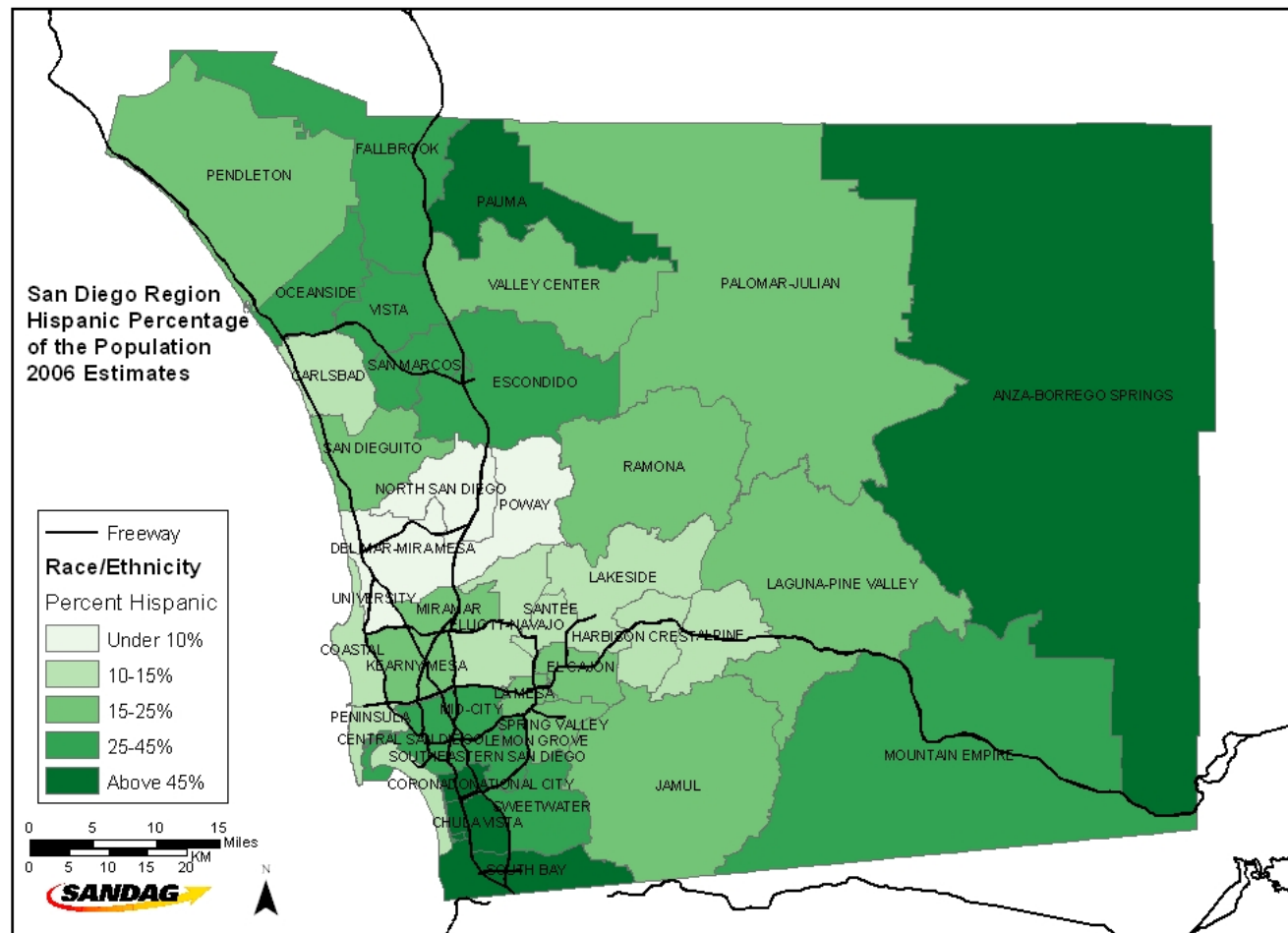
SANDAG Data Background

- **Data available for** 2000, current estimate, forecast to 2030

- **Data comes from** Census, CA Dept. of Finance, Employment Development Dept., County Assessor, local jurisdictions, in-house estimates and forecasts. Typically a 6-month to one-year lag.

- **Database contains:** SD region population: individuals, households, housing units, jobs
  - Demographics: age, race/ethnicity, gender
  - SES Characteristics: occupation, education, housing characteristics, income and poverty, family structure, household characteristics
  - By various geographic units: census tract, city, zip code, SRA, county

- **Caveat:** Not all data available for all geographic areas or for all years.

Example:
Hispanic Population by Age

Hispanic Population Concentrations in San Diego Region

County of San Diego, Health and Human Services Agency, Public Health Services, Community Health Statistics

SANDAG Data: Highlights

- Online
  - Data: www.sandag.org/datawarehouse
  - Reports: www.sandag.org/profilewarehouse

- Planning & Development
  - Expanding amount of data available at parcel level
  - Incorporating American Community Survey data

- Population Estimates
  - Rate calculations

- Other
  - Grant applications
  - Special tabulations and custom requests available through SANDAG's Service Bureau

SANDAG Data

Questions???

Automated Regional Justice Information System (ARJIS) Data

Pam Scanlon

ARJIS

ARJIS Background

- Centralized regional database for law enforcement to:
  - Solve crimes
  - Identify offenders
  - Notify officers of alerts
  - Standardize crime statistics

- Promotes data sharing between agencies
  - Arrest reports, crime cases, traffic accidents, pawn slips, moving citations

- Non-confidential data is used for the public web-based crime mapping & statistics
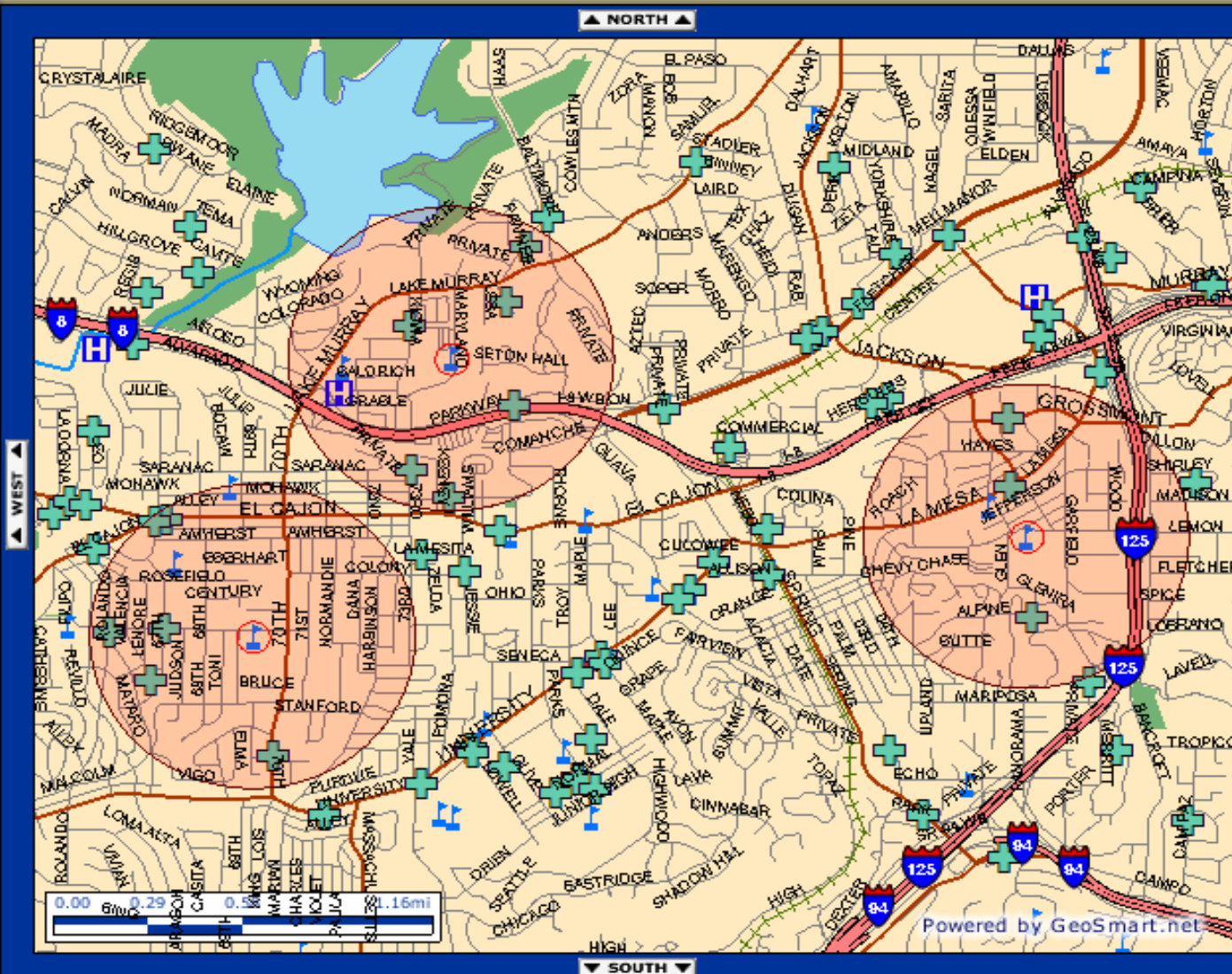
ARJIS Public Data: Background

- **Data available for**
  - Maps: since Jan 2005
  - Tables: max 91 days worth in last 12 months

- **Data comes from**
  - city police, county sheriff, harbor police, some school related agencies (SD Unified School District, SD Community College Police, USD, Pt Loma Nazarene, MiraCosta, Southwestern)

- **Database contains:** All of San Diego County reporting, by
  - Address (approximated on map)
  - Zip code, city, county, neighborhood, police beat, supervisor & council districts
  - Date, time and day of week
  - Type of crime or citation

- **Caveats:**
  - State and Federal law enforcement agencies are not included
  - Other data requests may be possible (for fee)

County of San Diego, Health and Human Services Agency, Public Health Services, Community Health Statistics

ARJIS Data: Highlights

- Public website: www.arjis.org
  - Customized crime maps
  - Crime statistics/reports

- eWATCH – register for daily email update of crimes near an address (City of SD only at www.sandiego.gov)

- Domestic Violence Communication System (not available to public)
  - Promotes information sharing in the DV community (shelters, batterer's treatment providers, law enforcement agencies)

ARJIS Data

Questions???

State-wide Integrated Traffic Records System (SWITRS) Data

Alan Smith, Ph.D., M.P.H.

Emergency Medical Services

SWITRS Background

- **Program established**
  - The Highway Safety Act of 1966
  - Uniform data collection to produce meaningful statistics

- **Types of activities**
  - Monitor injury rates
  - Identify high collision locations
  - Develop traffic safety programs
  - Evaluate the effectiveness of safety measures

SWITRS Data Background

- **Data available since** July 1995

- **Data comes from** California Highway Patrol, 6 month lag

- **Database contains:**
  - Anyone involved in motor vehicle related injury crash on a public roadway in San Diego County
  - Demographics
  - Event location, environment (road, weather conditions), circumstances (drunk driving, distracted driving), seat belt use
  - Data available for various subject units: victim, party, and crash levels

- **Caveat:** Includes Injury Crashes on Public Roadways. No info on property damage only, or crashes in driveways, parking lots, etc. Also very limited info on injury severity (Complaint of Pain through Death).
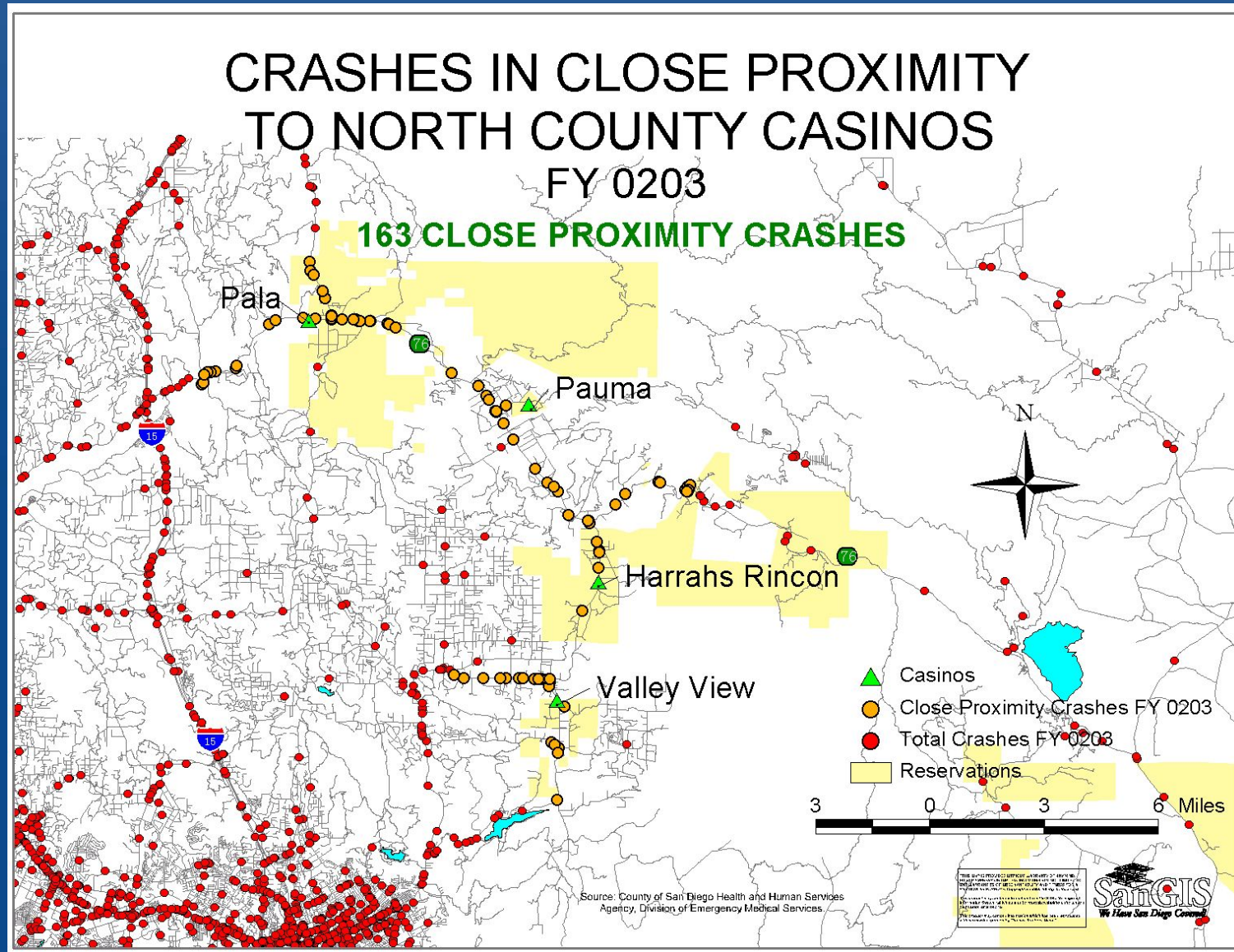
Example:
Casino-Related Crashes

- Recent opening and expansion of local casinos has been accompanied by an increase in traffic on the rural roads leading to the casinos.

- Looked at data to see if there has also been an increase in crashes on casino roads.

- Large sudden increase in crashes close to casinos following new opening.

SWITRS Map

CRASHES IN CLOSE PROXIMITY
TO NORTH COUNTY CASINOS
FY 0203

163 CLOSE PROXIMITY CRASHES

Pala

Pauma

Harrahs Rincon

Valley View

△ Casinos
● Close Proximity Crashes FY 0203
● Total Crashes FY 0203
▢ Reservations

3   0   3   6 Miles

Source: County of San Diego Health and Human Services
Agency, Division of Emergency Medical Services.

SWITRS Data: Highlights

- Annual report online:
  - www.SanDiegoCountyEMS.com
    (select Injury Prevention, Epidemiology and Surveillance Page)

- Prevention & Control Programs:
  - Safe Kids San Diego

- Special Research Projects:
  - Graduated Licensing Law Evaluation

County of San Diego, Health and Human Services Agency, Public Health Services, Community Health Statistics

SWITRS Data

Questions???

Population-based Databases

Birth Data

Sutida (Nid) Jariangprasert, M.P.H.

Maternal, Child and Family Health Services

County of San Diego, Health and Human Services Agency, Public Health Services, Community Health Statistics

MCFHS: Unit Background

- Program established
  - Protect the health of children, women and families

- Types of activities
  - Mobilize community partnerships to solve health problems
  - Ensure access to health and other community services
  - Promote and enforce legal requirements
  - Ensure quality of health and public health services
  - Inform and educate the public
  - Assess and monitor maternal and child health
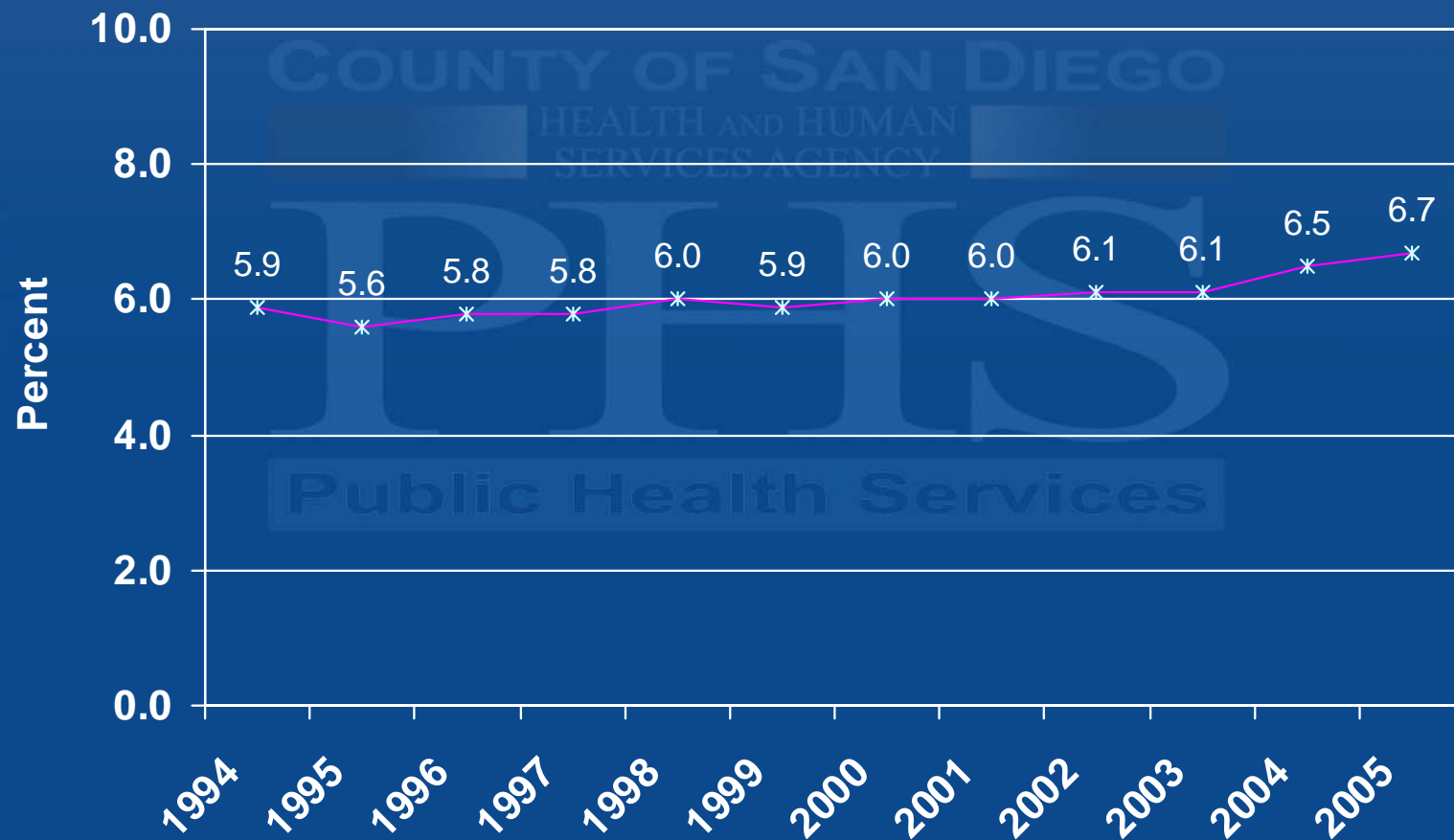
Birth Data: Background

- **Data available since:** 1990

- **Data source:** State law mandates registration of births. Data are available 6-9 months after end of calendar year.

- **Database contains:**
  – Births to county residents (including occurrence outside the county) and births that occurred in the county
  – Parents' demographics: age, race/ethnicity, education, marital status
  – Fertility rate, teen births, prenatal care, preterm births, low birth weight, method of delivery, plurality

- **Caveat:** only live births included (not all pregnancies)

Example:
Monitoring Low Birth Weight

- MCFHS works with women, health care providers and other public health groups to improve birth outcomes

- Medical science has advanced

- Is low birth weight decreasing?

Low Birth Weight
San Diego County Residents

County of San Diego, Health and Human Services Agency, Public Health Services, Community Health Statistics

Fetal Death Data

Sutida (Nid) Jariangprasert, M.P.H.

Maternal, Child and Family Health Services

Fetal Death Data: Background

- **Data available since:** 1989

- **Data source:** State law mandates registration of fetal deaths. Data are available about 9 months after end of calendar year

- **Database contains:**
  - All deaths prior to birth (beyond 20th week of gestation)
  - Fetal deaths among county residents (including occurrence outside the county) and deaths that occurred in the county
  - Parents' demographics: age, race/ethnicity, education
  - Fetal mortality, prenatal care, delivery method, length of gestation, birthweight, gender, cause of death
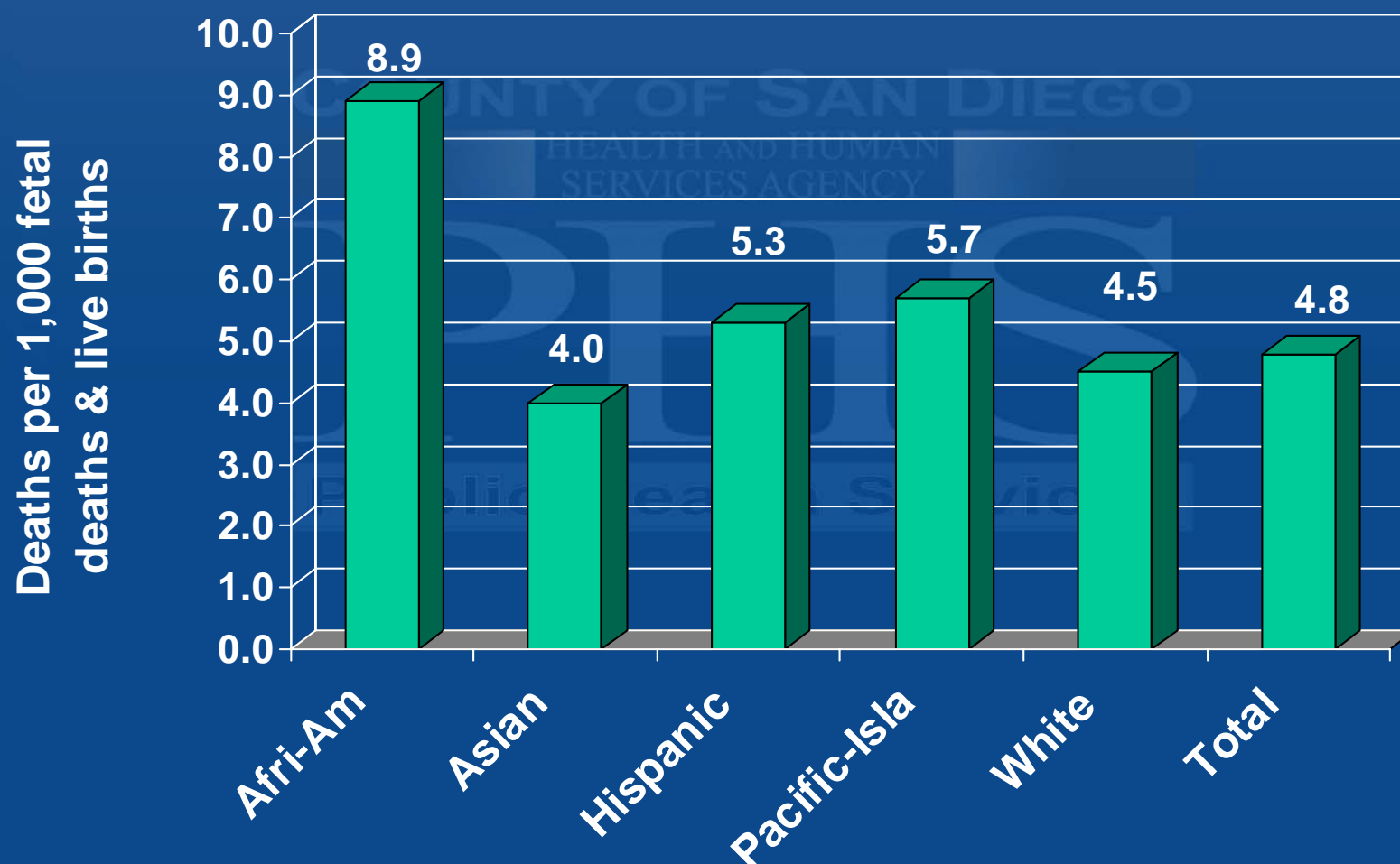
- **Caveat:** Reporting is not complete

Example:
Fetal Deaths

- Race/ethnic disparities in many health issues
- Is there a disparity in fetal deaths?
- Are there certain groups MCFHS should focus intervention efforts on?

Fetal Mortality by Race/Ethnicity San Diego County Residence, 2003-05

County of San Diego, Health and Human Services Agency, Public Health Services, Community Health Statistics
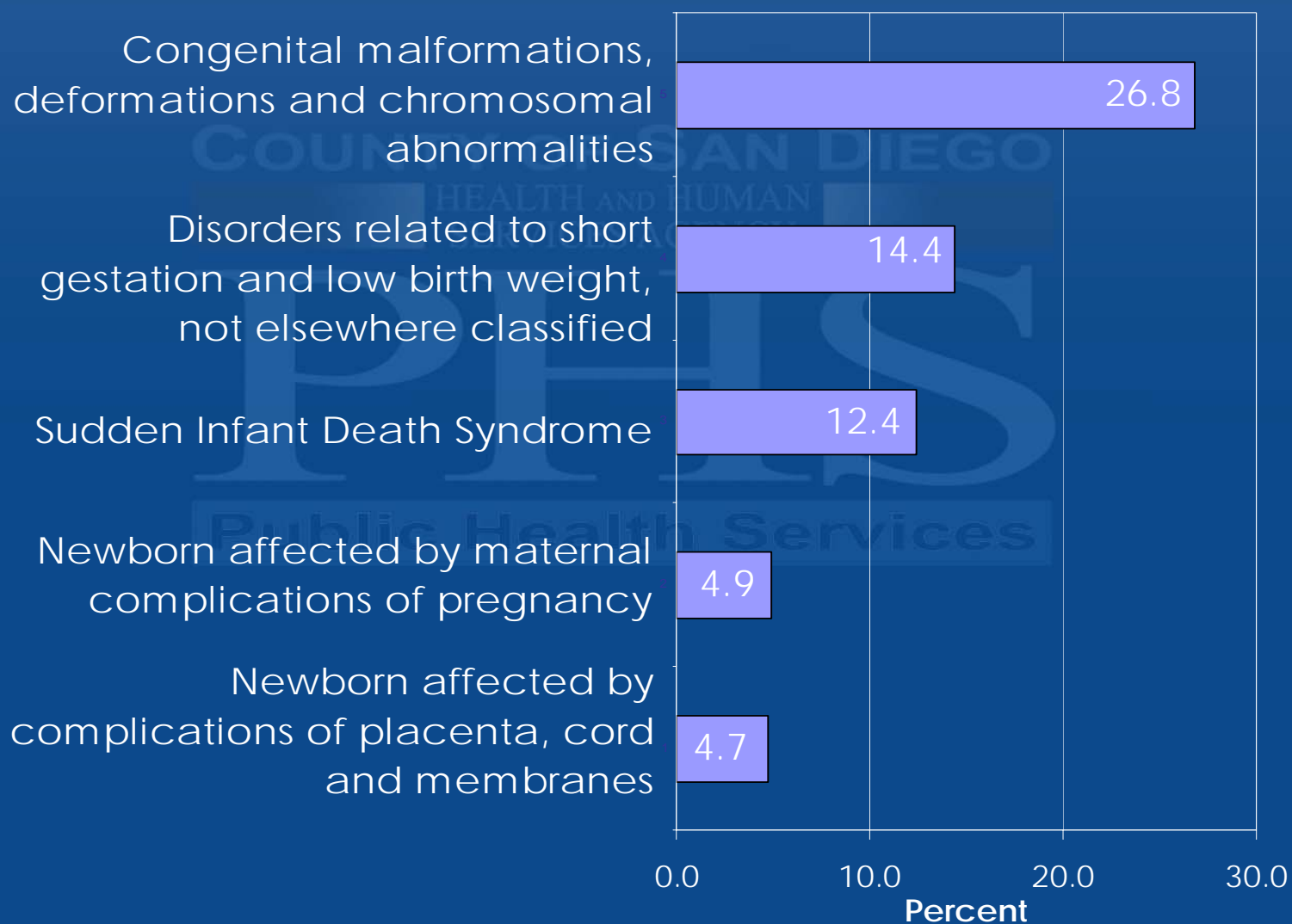
Infant Death Data: Background

- **Data available since** 1990

- **Data source:** State law mandates registration of deaths. Data are available 9-12 months after end of calendar year.

- **Database contains:**
  - Deaths among county residents (including occurrence outside the county) and deaths that occurred in the county
  - Infants' demographics: age, race/ethnicity, gender
  - Topic Specific: infant mortality (including neonatal, postneonatal), cause of death

- **Caveat:** Misreporting of information, e.g. race/ethnicity.

Example:
Infant Mortality

- Do our prevention efforts match what is happening in actuality?

- It would be useful to know: what are the leading causes of death?

- Can we reduce the risk of dying from any of the causes?

Leading Causes of Infant Death, 2002-2004, San Diego County Residence

Congenital malformations, deformations and chromosomal abnormalities — 26.8

Disorders related to short gestation and low birth weight, not elsewhere classified — 14.4

Sudden Infant Death Syndrome — 12.4

Newborn affected by maternal complications of pregnancy — 4.9

Newborn affected by complications of placenta, cord and membranes — 4.7

Percent

0.0 10.0 20.0 30.0

County of San Diego, Health and Human Services Agency, Public Health Services, Community Health Statistics

MCFHS Data – Highlights

- **Prevention & Control Programs:**
  - Perinatal Care Network (PCN)
  - San Diego Kids Health Assurance Network (SD-KHAN)
  - Dental Health Initiative/Share the Care
  - Black Infant Health (BIH) Program

- **Surveillance:**
  - Fetal and Infant Mortality Review (FIMR) Program

- **Special Research Projects:**
  - Obesity prevalence among kindergarteners, first graders

- **Planning & Priorities in Regions/County:**
  - Childhood Obesity Initiative

MCFHS Data
(births, fetal and infant mortality)

Questions???

- BREAK -

Death Certificate Data

Jennifer Nelson, M.P.H.

Community Epidemiology

Community Epidemiology: Background

- **Program established to**
  - Monitor, investigate and control communicable diseases
  - Rapidly detect and respond to bioterrorism events
  - Collect, analyze, and report disease data

- **Types of activities**
  - Disease control activities
  - Outbreak investigations
  - Disease surveillance and Syndromic surveillance
  - Health Assessment

Death Data: Background

- **Data available since** 1989 (through 2004 currently)

- **Data comes from** mandatory reporting of death certificates
  - Registered at county level then forwarded to state
  - Data file received from CA DHS after processing lag of 1-2 years

- **Caveat:** Only underlying cause of death is available, not additional contributing causes of death

Death Data: Background

- **Database contains:**
  - All recorded deaths of
    - San Diego County residents
    - Residents of other locales whose death occurred in San Diego County
  - Available variables
    - Demographics: age, race/ethnicity, gender, marital status, education
    - Geography: zip code, city, state of residence
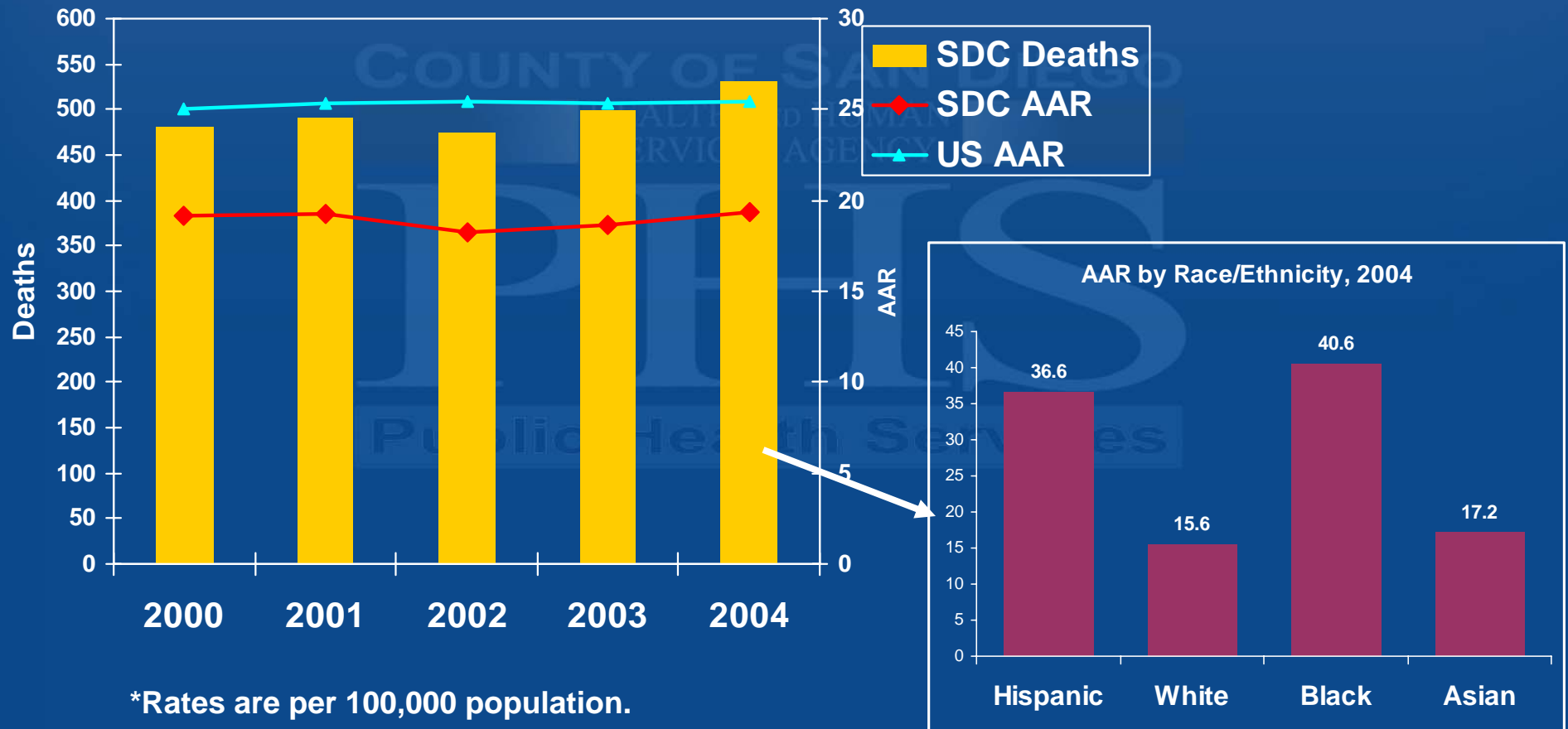   - Underlying cause of death, date of death, place of death

Example: Diabetes

- Nationwide disease burden associated with increasing diabetes prevalence

- Looked at mortality data to see how serious a problem diabetes is in San Diego County:
  - diabetes deaths in San Diego County increased to 531 in 2004 from 481 in 2000
  - 7th leading cause of death
  - Age-adjusted rates showed racial/ethnic disparities

- Local community groups use the data to help design programs promoting diabetes prevention and management in affected communities.

- County continues to monitor diabetes-related death rates

Diabetes Deaths, 2000-2004: Counts and Age-Adjusted Rates* (AAR)

US and San Diego County, 2000-2004

Legend:
- SDC Deaths
- SDC AAR
- US AAR

*Rates are per 100,000 population.

AAR by Race/Ethnicity, 2004

- Hispanic: 36.6
- White: 15.6
- Black: 40.6
- Asian: 17.2

Death Data: Highlights

- Annual tables online:
  - www.sdepi.org

  (select Epidemiology – Statistics and Reports)

- **Surveillance:**
  - Assess trends in mortality
  - Track deaths attributable to specific causes (including diseases, conditions, accidents, etc.)

- **Prevention & Control Programs:**
  - Determine leading causes of death county-wide and for specific regions and population groups

- **Special Research Projects:**
  - Measure health disparities

- **Planning & Priorities in Regions/County:**
  - Assess the health of the community and measure health outcomes

Death Data

Questions???

PreHospital Database

Barbara Stepanski, M.P.H.

Emergency Medical Services (EMS)

Emergency Medical Services: Background

- **Program established**
  - Local EMS agency to ensure quality emergency medical services in San Diego County

- **Regulatory agency for**
  - 9-1-1 ambulance service
  - Trauma care
  - Non-emergency ambulance
  - Certifies/accredits prehospital personnel
  - Approves training programs for prehospital personnel
  - Designates participants in county wide EMS system (base hospitals, advanced life support providers, trauma centers, etc.)
  - Quality assurance
  - Surveillance of EMS system
  - Develops policies and protocols

Prehospital Data Background

- **Data available since** 1997

- **Data comes from** mandatory reporting County EMS system. Events are reported real time, detail event information several year lag.

- **Database contains**:
  - Prehospital database is population based
  - All patients responded to by Emergency Medical Technicians (EMTs) and/or Paramedics via the 911 system in San Diego County, by zip code of incident
  - Patient information
  - Chief complaint
  - Treatment information

- **Caveat:** Several years lag time for detailed data, which includes zip code.

Example: Surveillance

- Normal surveillance showed spike in cardiac chief complaints

- Timing: spikes occurred just after school shootings in East County

- Further investigation showed no cardiac peak after "natural" disasters (i.e. fires)

- Future: consider needs/plan for post-traumatic effects of non-natural trauma situation
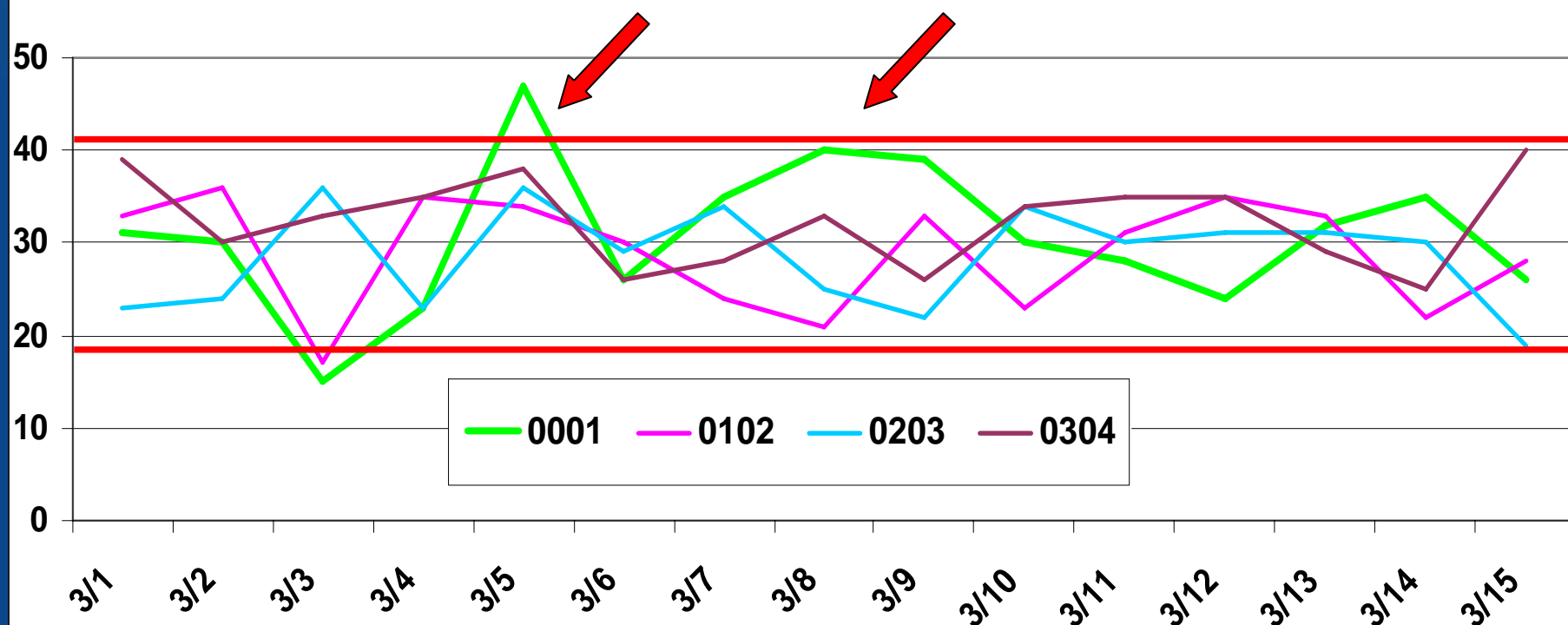
Prehospital Data: Highlights

- Annual report online:
  - www.SanDiegoCountyEMS.com
    (select Injury Prevention, Epidemiology and Surveillance Page)

- Prevention & Control Programs:
  - Helmet law
  - Child restraint use study
- Surveillance, Regulatory oversight & quality assurance:
  - Heat related incidents
  - Lasix use in prehospital setting
- Special Research Projects:
  - 911 responses for underage alcohol/substance abuse
- Planning & Priorities in Regions/County:
  - Central Region – high rate of pedestrian injuries

Prehospital Data

Questions???

Emergency Department (ED) Discharge Data

Holly Shipp, M.P.H.

Emergency Medical Services (EMS)

ED Database: Background

- **Database established:**
  - Faster access to ED discharge data
  - Voluntary cooperation from hospital EDs
  - Only county in CA to have a current, population based ED database

- **Type of program:**
  - Surveillance

ED Data: Background

- **Data available since** July 2005 (new local database)

- **Data source:** voluntarily submitted quarterly by participating civilian hospitals, representing 97% of all ED discharges. ~4 month lag for processing.

- **Database contains**: all patients who were treated and discharged from participating EDs in San Diego County
  - Demographic variables: age, race/ethnicity, gender, zip code of residence
  - Service date, patient disposition, expected source of payment
  - Principal & other diagnosis, E-code (mechanism of injury)

- **Caveat:** Does not include patients admitted to hospital from the ED (i.e. most severe cases of illness or injury)

Example: ED Use

- Certain subgroups of people in SD County are using EDs as a primary source of care

- Looked at ED discharges by Region to establish differences in the rate of ED discharge

- Higher rates of ED discharge in the Central, South, and East Regions than in North Coastal, North Central, and North Inland Regions.

- High rates of ED discharge may signify the use of the ED as a primary source of care. Additional analysis to be conducted to profile ED use by region.
  - Demographics, expected source of payment, diagnoses
  - Community assets and limitations to accessing healthcare
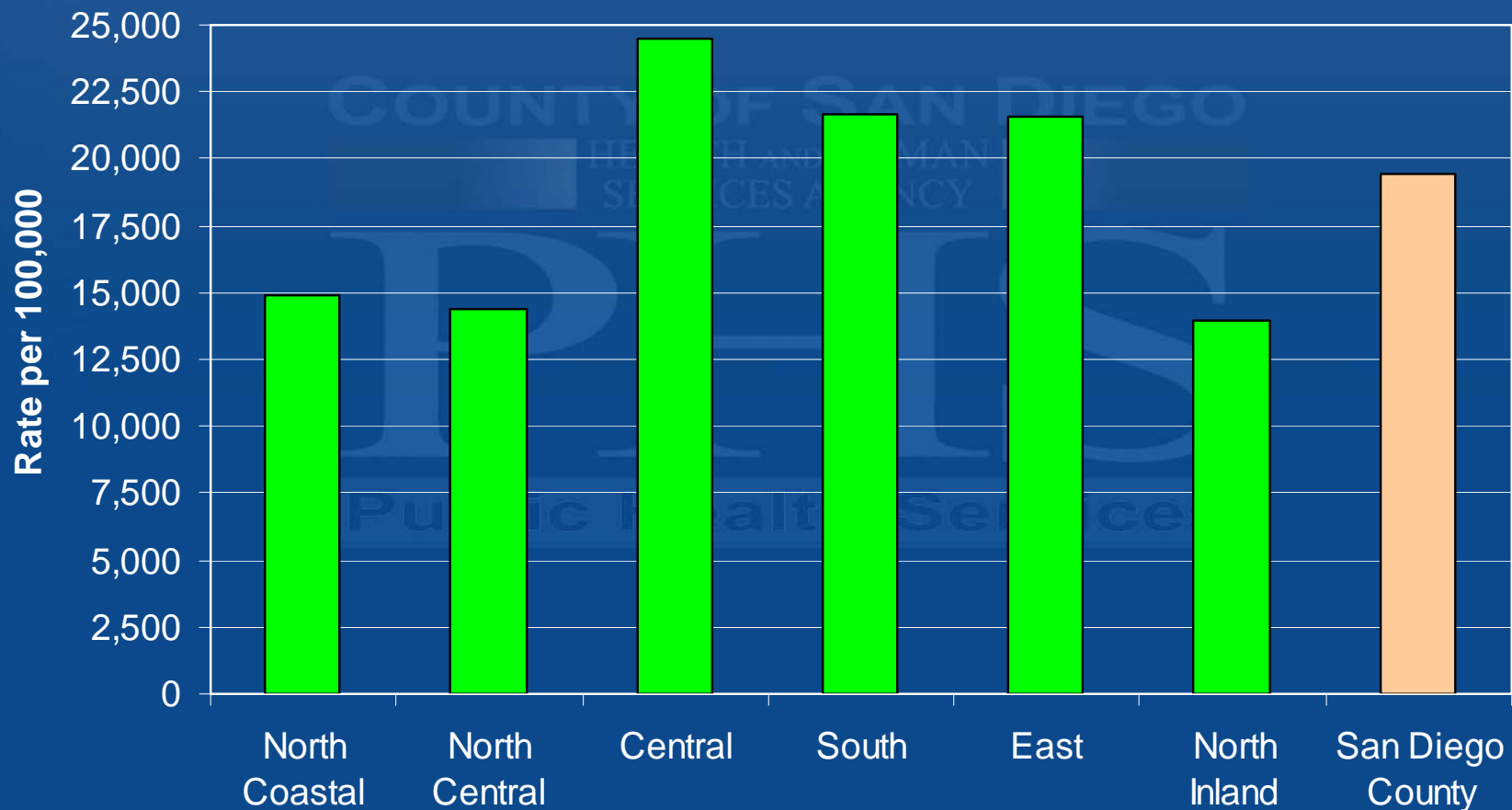
ED Data: Highlights

- Reports online:
  - www.sdchip.org
  - www.SanDiegoCountyEMS.com
    (select Injury Prevention, Epidemiology and Surveillance Page)

- Prevention & Control Programs:
  - Elderly Fall Prevention

- Surveillance:
  - Diabetes, Asthma, Mental Illness, Substance Use/Abuse

- Special Research Projects:
  - ED use algorithm – characterize ED utilization for non-emergent and primary care treatable medical conditions
  - Homelessness

- Planning & Priorities in Regions/County:
  - San Diego County: ED use by the uninsured

ED Data

Questions???

Trauma Registry

Alan Smith, Ph.D., M.P.H.
Emergency Medical Services

EMS - Trauma Background:

- **Program establishment**
  - An assessment was done to determine whether San Diego County would benefit from a regionalized trauma system.
  - The findings and recommendations led to the development of a joint Hospital Council and Medical Society plan for care of trauma patients in San Diego County
  - August 1984, a regionalized system of trauma care was developed by physicians, nurses, prehospital providers, citizens and system specialists

- **Types of activities**
  - Regulatory agency, quality assurance
  - Policies & protocols
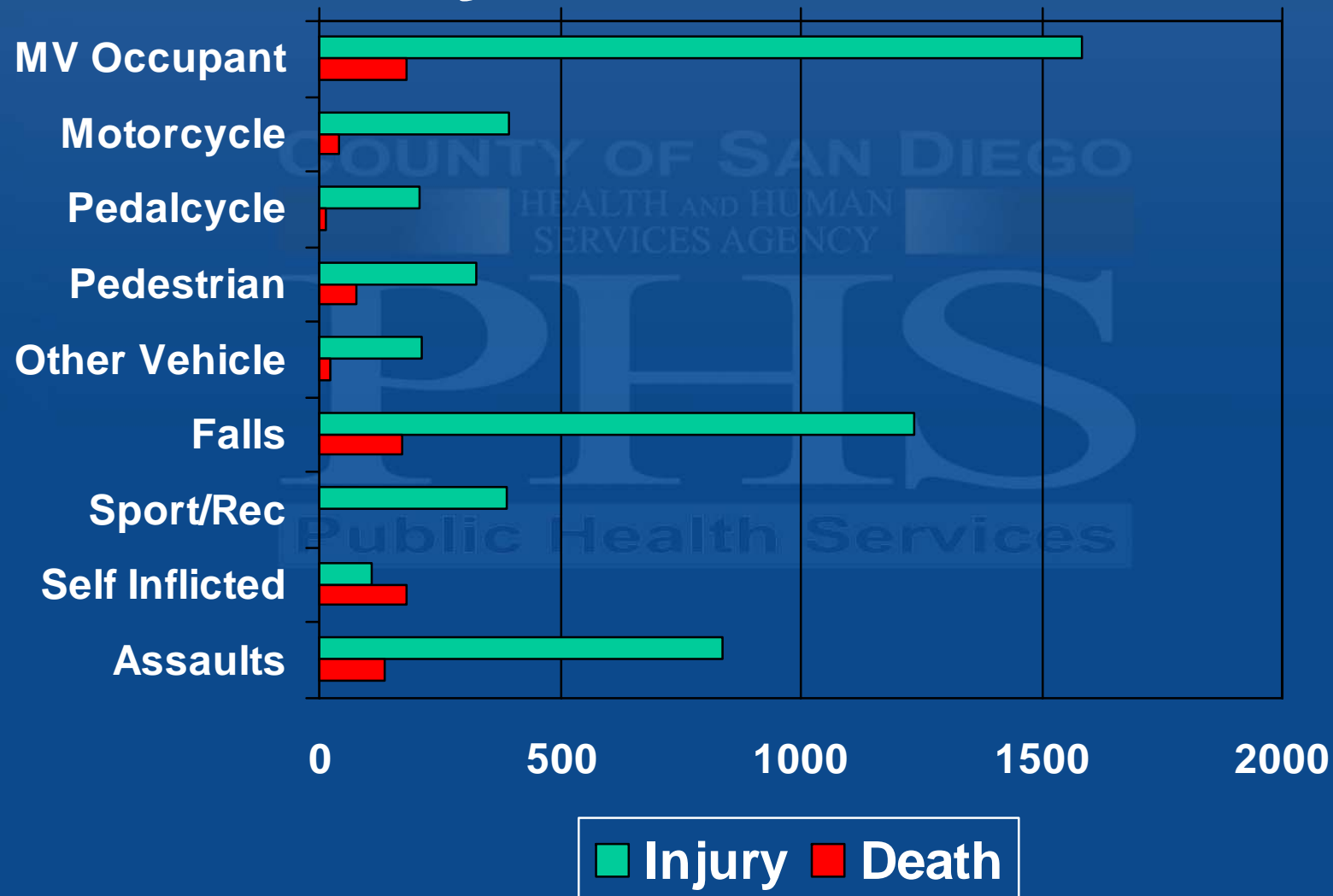 - Education

Trauma Data: Background

- **Data available since** 1985

- **Data comes from** State mandated reporting for trauma facilities, 3 month time lag for reporting.

- **Database contains:**
  – Patients seen at San Diego County Trauma Centers
  – Demographics
  – Zip code of residence, possible zip code of occurrence
  – Event date/time, limited prehospital information, diagnosis, injury E-code, treatment/surgery, survival outcome

- **Caveat:** Highly sensitive data, research requires clearance from hospital IRBs and Medical Audit Committee

Example:
Leading Causes of Injury

- Annual Trauma Report examined leading causes of injury and death due to trauma

- Motor vehicle occupant crashes and falls are the leading causes of injury; joined by suicide as a leading cause of traumatic death

- Community based organizations used this information as a springboard to initiate programs to prevent specific types of injury (e.g., elderly falls, suicide)

Trauma System Injuries and Deaths by Mechanism

County of San Diego, Health and Human Services Agency, Public Health Services, Community Health Statistics

Trauma Data: Highlights

- Annual report online:
  - www.SanDiegoCountyEMS.com
    (select Injury Prevention, Epidemiology and Surveillance Page)

- Prevention & Control Programs:
  - Trauma System quality improvement
  - Safe Kids San Diego

Trauma Data

Questions???

Hospital Patient Discharge Data

Lacey Hicks, M.P.H.

Community Epidemiology

County of San Diego, Health and Human Services Agency, Public Health Services, Community Health Statistics

Community Epidemiology: Background

- **Program established**
  - Monitor, investigate and control communicable diseases
  - Rapidly detect and respond to bioterrorism events
  - Collect, analyze, and report disease data

- **Types of activities**
  - Disease control activities
  - Outbreak investigations
  - Disease surveillance and Syndromic surveillance
  - Health Assessment

Hospital Discharge Data: Background

- **Data available since** 1997 *(through 2005 currently)*

- **Data come from** mandatory reporting to California Office of Statewide Health Planning and Development (OSHPD)
  - Database received from OSHPD after processing lag of 1-2 years

- **Database contains:**
  - Each inpatient discharged from a California licensed acute care hospital in San Diego County
  - Demographics: age, race/ethnicity, gender
  - Geography: zip code of residence
  - Clinical information: diagnosis (ICD-9-CM), injury (E-Codes), length of stay, disposition of patient, total charges, expected source of payment

- **Caveats:** Includes only patients admitted to a hospital licensed by California. 1-2 year lag time for data.

Example:
Diabetes Hospitalizations

- HHSA Strategic Plan for FY 2004 – 2009: To promote wellness and self-sufficiency, reduce diabetes-related deaths in all communities

- Look at diabetes-related hospitalization data by HHSA region to help determine where to focus intervention efforts toward reducing life-threatening diabetes

- In 2003, Central Region showed the highest hospitalization rate, followed by South and East Regions

- Focus targeted intervention efforts in the above 3 regions

- Follow-up: Continue to annually monitor diabetes hospitalization rates by region to assess intervention efforts

Diabetes Hospitalizations Among San Diego County Residents, by HHSA Region, 2003
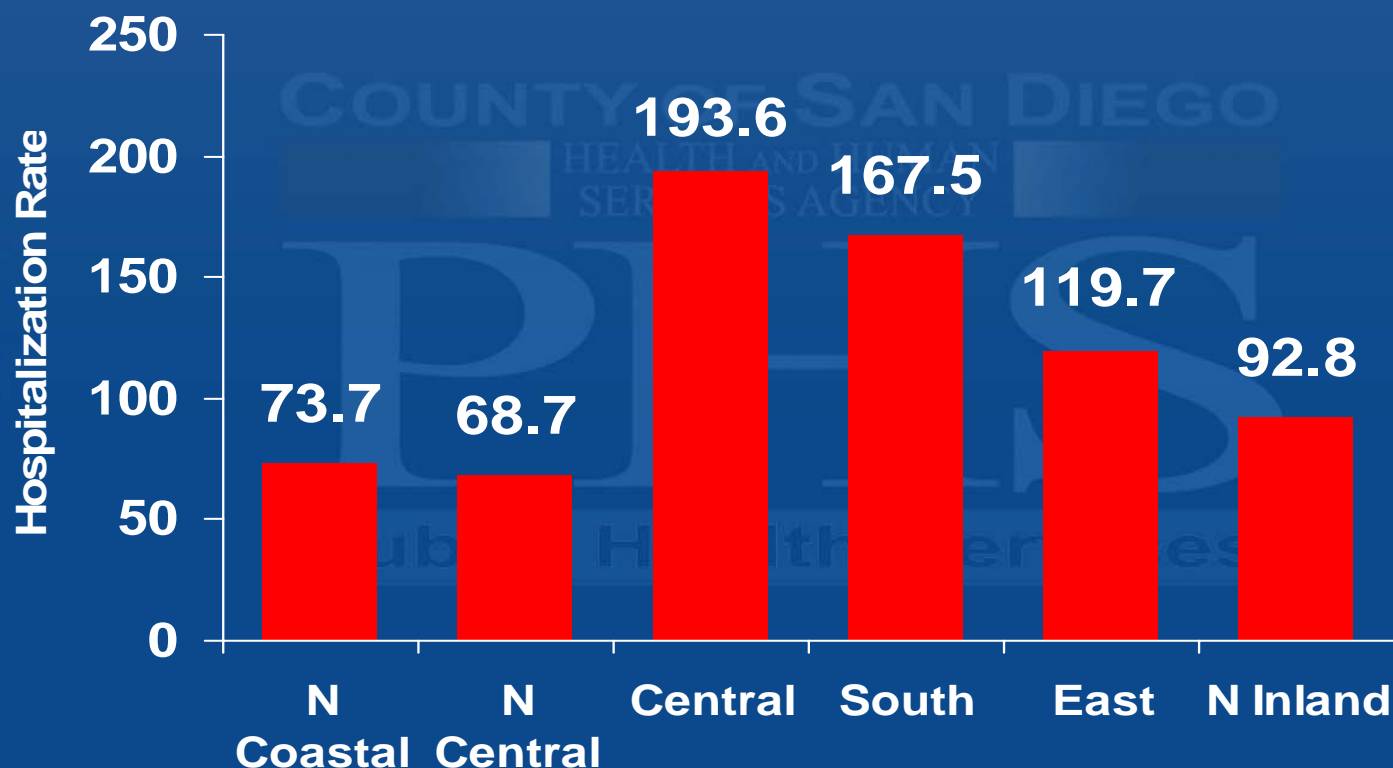
All rates are per 100,000 population and are adjusted to 2000 Standard US Population
Diabetes includes hospitalizations with a primary ICD-9-CM Code of 250
Source: CA Office of Statewide Health Planning & Development; SANDAG population estimates, rel 7/2004

Hospital Discharge Data: Highlights

- Annual Tables and Reports Online:
    - Local: www.sdepi.org, (select Epidemiology – Statistics and Reports)
    - California State: http://www.oshpd.ca.gov/

- Prevention & Control Programs:
    - Determine leading causes of hospitalizations county-wide and for specific regions and population groups

- Surveillance:
    - Track hospitalizations attributable to specific causes (including diseases, conditions , accidents, etc.)
    - Assess trends in hospitalizations

- Special Projects:
    - Measure health disparities

- Planning & Priorities in Regions/County:
    - Estimate disease/condition burden on community through total charges, length of stay of hospitalizations, and expected source of payment

Hospital Discharge Data

Questions???

Medical Examiner (ME) Data

Alan Smith, Ph.D., M.P.H.

Emergency Medical Services

County of San Diego, Health and Human Services Agency, Public Health Services, Community Health Statistics

Medical Examiner: Background

- **Branch established to**
  - Investigate cause & manner of unnatural deaths
    - Homicides, suicides
    - Accidents
    - Sudden/unexpected natural deaths
    - Deaths not certified by physician

- **Types of activities**
  - Related forensic services
  - Assistance and education
    - to families of the deceased
    - to public and private agencies

ME Data: Background

- **Data available since** 1988

- **Data comes from** ME office after case closes (6 months)

- **Database contains:** Non natural deaths occurring in San Diego County
  - Demographics
  - Zip code of residence, Event location
  - Cause of death, investigative report, autopsy, toxicology, pathology, medical/surgical history

- **Caveat:** Does not include SD county residents who died elsewhere, but does include residents of other areas who died here. Law enforcement may seal records still under investigation, sometimes for several years.

Example:
Cause of Non-Natural Death Trends

- ME noticed large number of suicides

- Reviewed data to see if it supports the "anecdotal trend"

- Suicide was the leading cause of non-natural death from 1992 through 1998

- CHIP formed a committee to focus on suicide prevention

- Increased resources for suicide prevention

ME Data: Cause of Death by Year, 1988 - 2004
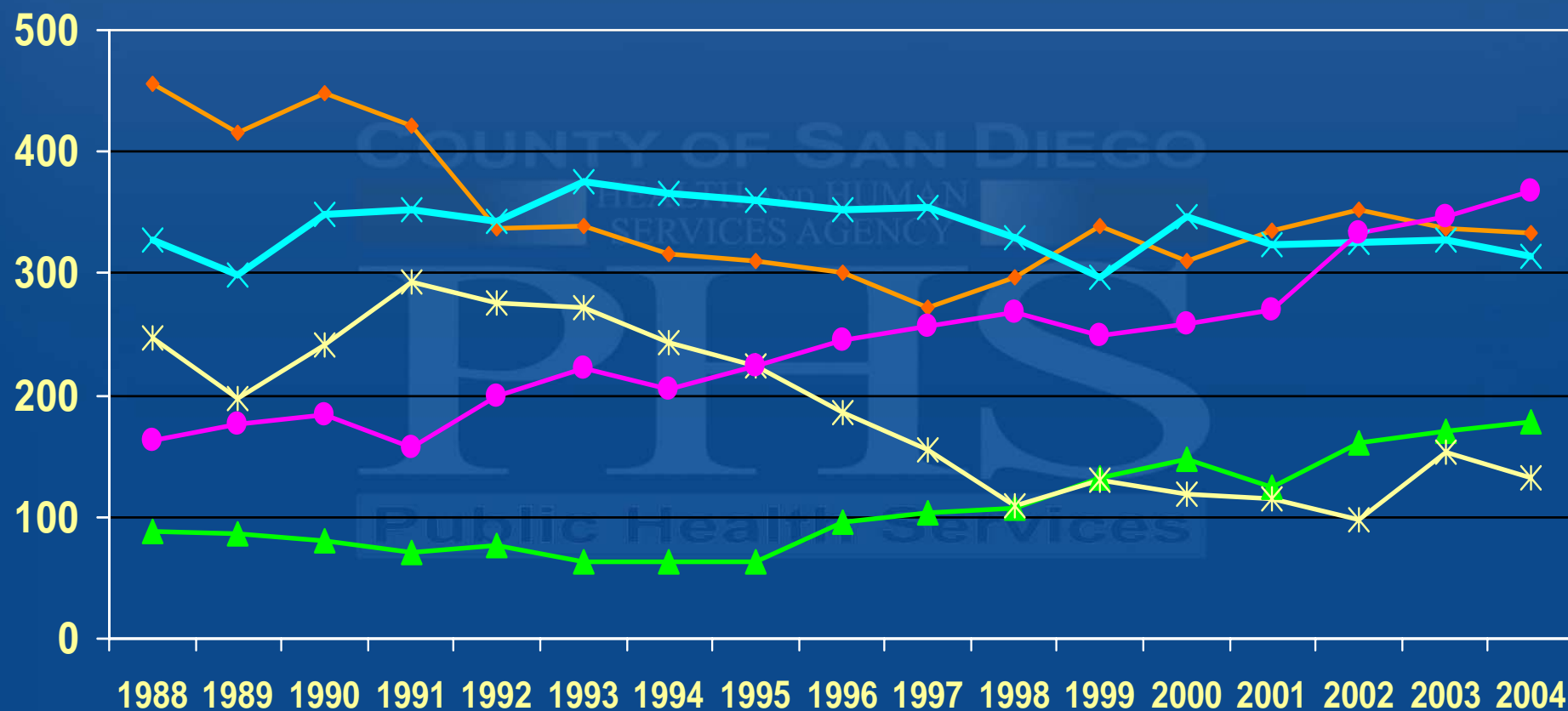
Legend: Motor Vehicle Related · Falls · Suicide · Homicide · OD/Poisoning

County of San Diego, Health and Human Services Agency, Public Health Services, Community Health Statistics

ME Data: Highlights

- Annual reports online, Trauma & Suicide:
  - www.SanDiegoCountyEMS.com
    (select Injury Prevention, Epidemiology and Surveillance Page)

- Prevention & Control Programs:
  - CHIP Suicide Prevention workgroup
- Surveillance:
  - Trauma-related deaths – bimonthly report to MAC
- Special Research Projects:
  - Motor Vehicle Occupant death rate change following primary seat belt law
  - Food-related asphyxiation deaths in adults
- Planning & Priorities in Regions/County:
  - Central Region – high rate of suicide

Medical Examiner Data

Questions???

Special Group or Service Databases

Alcohol & Drug Services (ADS) Data

Alice McLennan

Scott Belfield

Alcohol and Drug Services (ADS)

Alcohol and Drug Services: Background

- **ADS Background**
  - Part of Behavioral Health Services Division:
  - Improve the quality of life
  - Promote recovery and social well-being
  - Assure the quality and accessibility of health services

- **Types of Activities**
  - Prevention
  - Intervention
  - Treatment
  - Recovery services

Alcohol & Drug Services Data: Background

- **Data available since** 1995

- **Data is collected upon** admission, discharge and annual updates from patient follow up. Some data is federally or state mandated. Data is available after 1 month lag, future goal is real time access.

- **Database contains:**
  - All persons who use services at County of San Diego alcohol and drug treatment facilities (voluntary and mandatory)
  - Demographics: age, race/ethnicity, gender, zip code
  - Drugs used, age at first use, number of treatments & more
  - Family, social, legal, medical, psychological

- **Caveat:** Data does not include private treatment facilities.

County of San Diego, Health and Human Services Agency, Public Health Services, Community Health Statistics

Example: Drug of Choice

- Methamphetamine use has historically been high in San Diego County

- Reviewed admission data for drug of choice

- Data shows meth is #1 drug of choice among county treatment clients (FY 05-06)

- Methamphetamine Strike Force & other groups working on intervention strategies

- County will continue to monitor trends

Primary Drug of Choice,
County Alcohol & Drug Treatment Facilities, FY 05-06 (n=12,774)

Other 2%

Heroin 7%

Cocaine 8%

Marijuana 16%

Alcohol 21%

Methamphetamine 46%
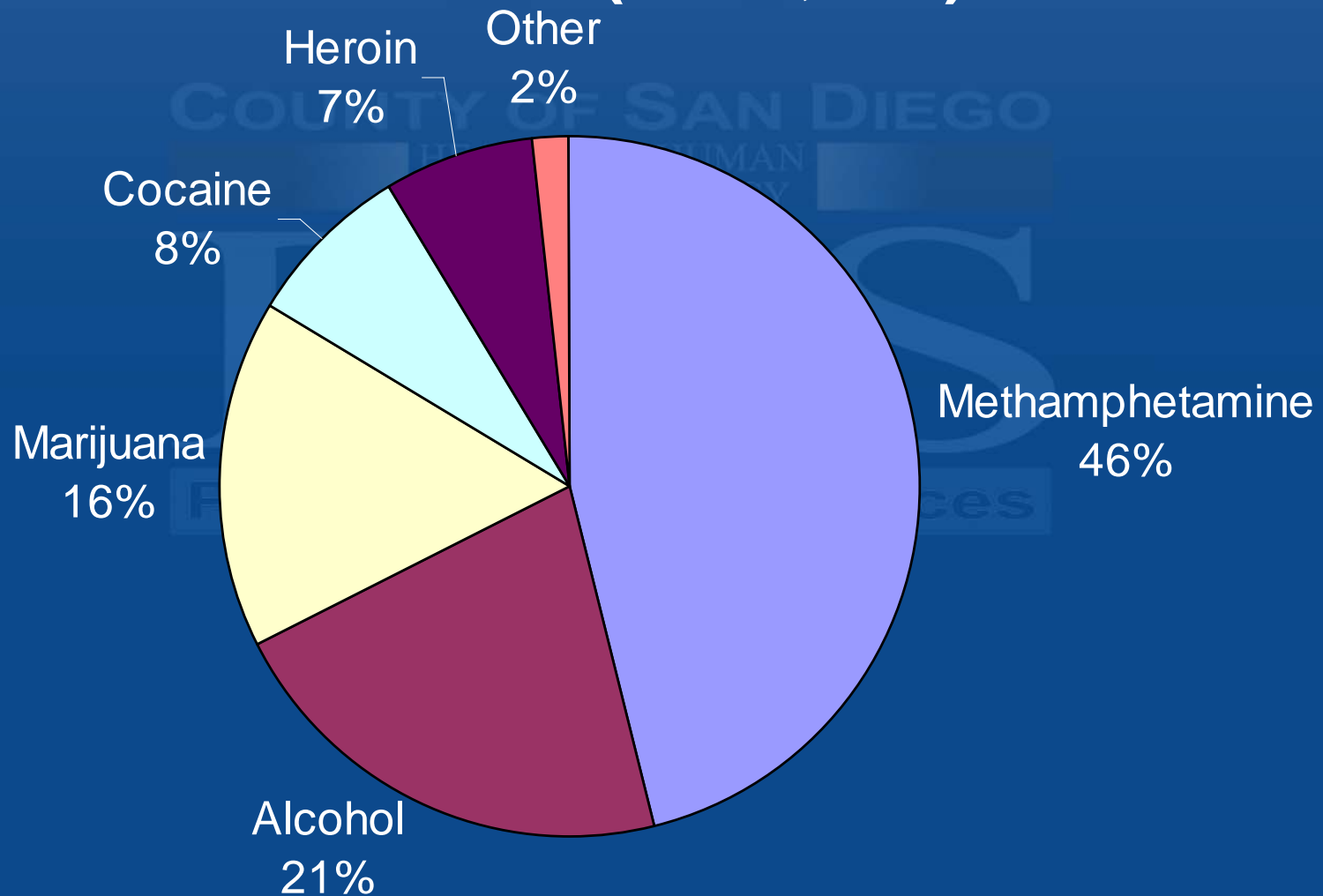
Alcohol & Drug Services Data: Highlights

- Website:
  - www2.sdcounty.ca.gov/hhsa/ServiceCategoryDetails.asp?ServiceAreaID=15

- Prevention & Control Programs:
  - Binge drinking
  - Under age drinking across the border
- Surveillance:
  - State & National outcome measures
  - Methamphetamine Use

- Special Research Projects:
  - Treatment outcome measurement of various life domains
- Planning & Priorities:
  - HHSA Regions

Alcohol & Drug Services Data

Questions???

Mental Health Services Data

Rick Collantes, MBA, MSFS

Quality Improvement, Performance Outcomes Unit

Mental Health Services: Background

- **Purpose of Mental Health Services:**
To serve and assist clients with Mental Health issues

- **Types of Programs**
  - Direct Services
  - Education
  - Outreach
  - Wrap around services

- Mental Health Services is part of Behavioral Health Services.
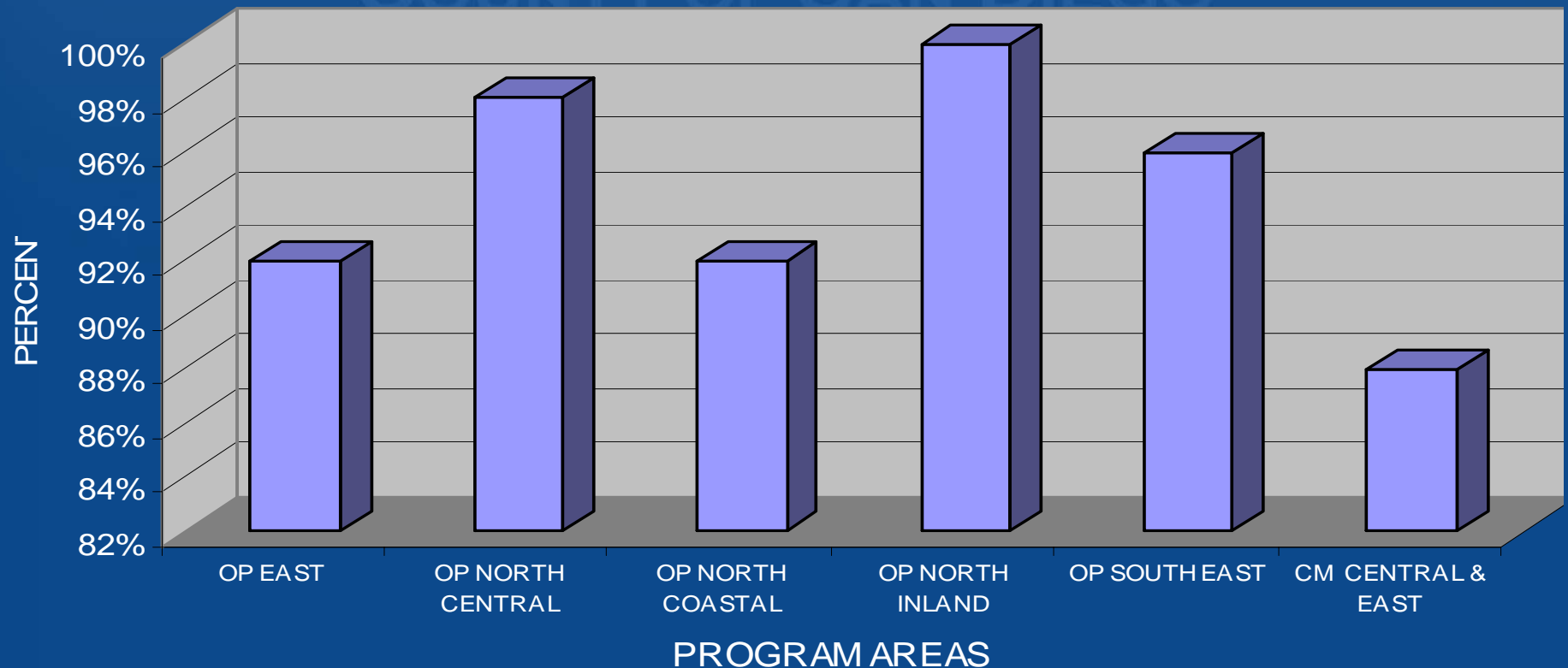
Mental Health Services Data: Background

- **Data available since** 2006

- **Data comes from** monthly input from all outpatient & case management programs

- **Database contains:**
  - Clients eligible for governmental assistance, uninsured, court mandated treatment
  - Demographics including housing
  - Treatment information (diagnosis, medication, outcomes)

- **Caveat:** Data does not include those from private treatment facilities

Example:

- Tracking client outcomes :
  - Mental Health Treatment Stages
  - Substance Abuse Treatment Scale
  - Mental Health Statistic Improvement Program
  - Residential Status Outcome
  - Employment Status Outcome
  - Education Status Outcome

- County continues to monitor client outcomes

Mental Health Services Data Sampling of Client Outcomes

MHRTS 3Q FY06-07

Mental Health Services Data: Highlights

- Data available upon request.

- Outreach Programs:
  - Employment of Consumer Clients
- Surveillance:
  - Client Outcomes
  - Death Rates, suicide
  - Other services: ER use, ADS data
- Special Research Projects:
  - Geriatric Study
  - Dual Diagnosis
  - Latino Access
- Trends & Priorities in Regions/County:
  - Lower rate of acceptance of treatment intervention by certain ethnicity

Mental Health Services Data

Questions???

Immunization Data

Wendy Wang, M.P.H.

Immunization

Immunization Program: Background

- ## Program established
  - To reduce vaccine-preventable diseases by improving vaccine coverage

- ## Types of activities
  - Disease investigation/control
  - Education
  - Community collaboration, school law
  - Assessment
  - Immunization Registry

Immunization Data: Background

- **Data available since** 1990-2005, depending on source

- **Data comes from** surveys, medical charts, school records, immunization registry, various lag time for processing

- **Database contains:**
  - Who depends upon dataset and may include:
    - Cases (reportable, vaccine preventable diseases)
    - Sample of San Diego residents, or kindergarteners
    - Clients received immunization services at Public Health Clinics, Community Health Clinics and private practices cross County
  - Demographics: age, race/ethnicity, gender, education, zip code (limited)
  - Disease histories, Vaccine histories, Vaccine attitudes

- **Caveat:** sample bias, limited information at zip code level

Example:
Vaccination Coverage by Age 2

- Low immunization rates at Community Health Centers (CHC)

- Chart review to find out the causes

- Data shows high rate of drop off

- Reminder/recall to bring family back

- County reviewed latest rates

- Rates going up !
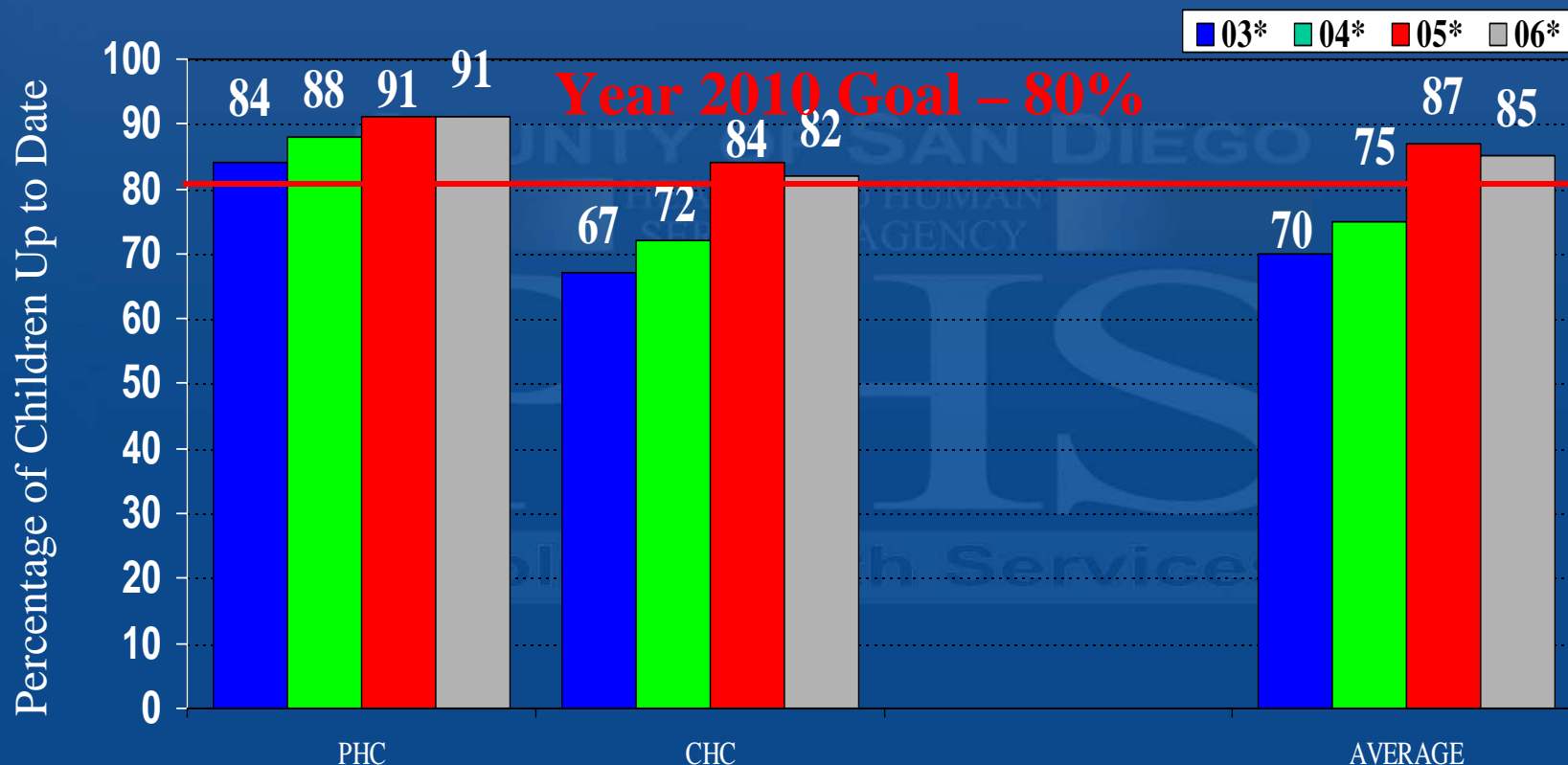
Immunization Data: Highlights

- Online:
  - www.sdiz.org

- Prevention & Control Programs:
  - Pertussis awareness campaign in medical communities
- Surveillance:
  - Pertussis case rate higher than previous years
  - Vaccine adverse event report system
- Special Research Projects:
  - San Diego Hospital Heath Care Worker Influenza Immunization Intervention Project
- Planning & Priorities in Regions/County:
  - Disparity, immunize cross life span

Immunization Data

Questions???

HIV Counseling and Testing Data

Lorri Freitas, M.P.H.

HIV/AIDS Epidemiology/ Community Epidemiology

HIV Testing Program: Background

- **Purpose:**
  - HIV prevention
  - Access to HIV testing

- **Types of activities:**
  - HIV risk assessment
  - Counseling
  - Testing
  - Referral services

HIV Testing Data: Background

- **Data available since** 1990

- **Data comes from** local county facilities that provide testing, 4-6 month lag, reported annually

- **Database:** Includes occurrence in SD County, most are SD County residents

  - Anyone seeking HIV testing at County or County-contracted test sites (minimum age 12-13 yrs old)
  - Demographic: age, gender, race/ethnicity, zip code (limited) of residence
  - Behavioral: sexual orientation, number of sexual partners, gender of partners, sexual behaviors
  - Testing: reason for testing, number of prior HIV tests, test type, test result

- **Caveat:** Sensitive data – this may limit data availability for less than county-wide data, particularly zip code analysis.
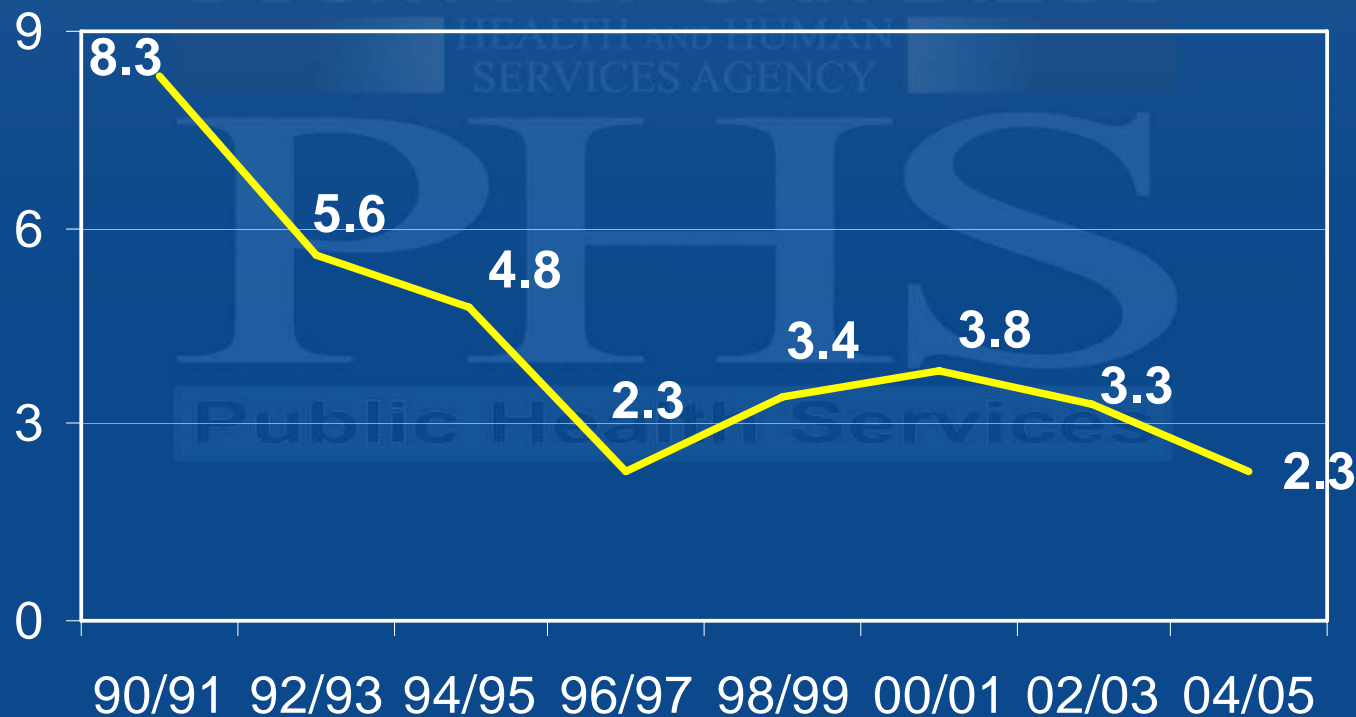
Example: Young MSM

- Increase in HIV infection rates starting 2001; were young MSM (men who have sex with men) affected here as in other metropolitan areas?

- Looked at data for MSM by age group

- The infection rate for young MSM in SD did not increase as it had in other metropolitan areas

HIV Anonymous Testing
Rate per 100 MSM Ages 12-24 Testing HIV+
San Diego County, 90/91-04/05

HIV Testing Data: Highlights

- Annual report online:
  - www.sdhivaids.org

- Prevention & Control Programs:
  - Outreach to high risk groups (at clubs, community events, support groups)
- Surveillance:
  - High risk populations
  - Changes in modes of transmission
  - Service patterns
- Special Research Projects:
  - MSM and amphetamine use
- Planning & Priorities in Regions/County:
  - South and Central Region
  - Hispanic and African American men (mostly MSM)

HIV Testing Data

Questions???

HIV/AIDS Reporting System (HARS) Data

Samantha Tweeten, Ph.D., M.P.H.

HIV/AIDS Epidemiology/ Community Epidemiology

HIV/AIDS Reporting Program: Background

- **Program established for**
  - Timely and accurate HIV and AIDS case reports
    - Provides this county with a better understanding of our local epidemic
  - Monitoring trends
    - For planning of future health care needs, prevention and educational activities, and other assistance programs
    - Increases in some groups may help target prevention efforts

- **Types of activities**
  - Surveillance
  - Provision of data for internal and external customers/partners

HIV/AIDS Data: Background

- AIDS data available since 1981

- State mandated reporting
  - Mandatory reporting from providers and labs
  - Up to 1 month delay possible but…
    - Cases continue to be reported long after diagnosis

- Cases include:
  - Any San Diego County resident diagnosed in San Diego County. San Diego County residents diagnosed elsewhere may be included
    - All HIV cases reported after 4/17/06
    - All AIDS cases reported after 1981
  - Demographics, region or zip code (limited) of residence
  - Risk group/Patient history
  - Laboratory data
  - Opportunistic infection data

- Recent changes in HIV reporting may delay data availability
  - AIDS data unaffected

Example: Epidemiologic Profile

- **Data Request:**
  - HSHB (HIV, STD & Hepatitis Branch) requests an epidemiologic profile of the epidemic in San Diego County
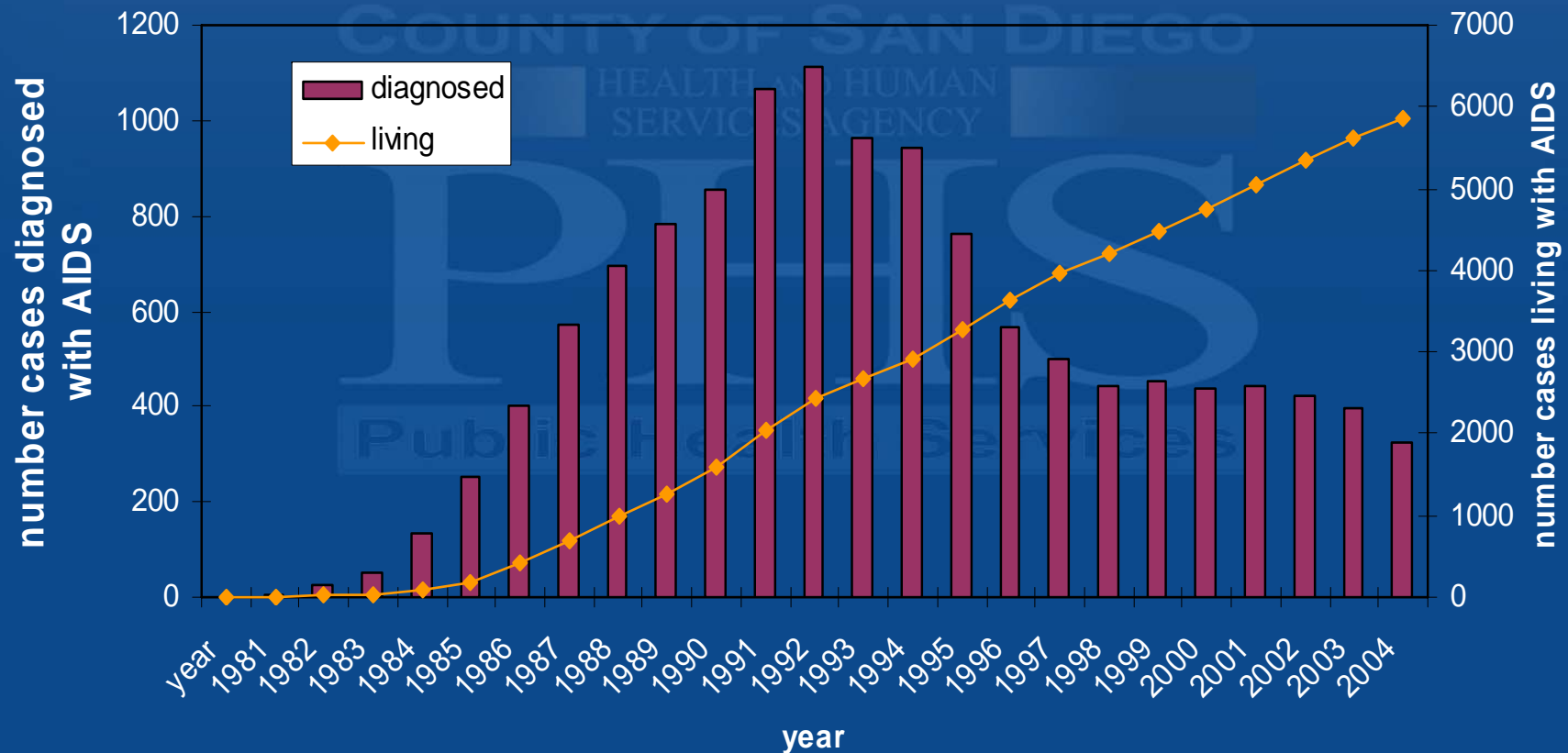
- **Product:**
  - Report produced including HHSA regions, demographics, mode of transmission, etc. to fully describe the epidemic in San Diego County

- **Result:**
  - Epi Profile goes into the HSHB Comprehensive Plan
    - Used to determine where care and services should be concentrated

HIV/AIDS Data: Example

Living and Diagnosed AIDS Cases

County of San Diego, Health and Human Services Agency, Public Health Services, Community Health Statistics

HIV/AIDS Data: Highlights

- Annual report online:
  - www.sdhivaids.org
- Provide data to internal and external customers
  - Community care providers, HIV Planning Council
  - For grant proposals, community planning, etc.
- Surveillance
  - Determining increases in specific groups
- Special Reports
  - AIDS in Hispanics, AIDS in Women, etc.

HIV/AIDS Reporting Data

Questions???

STD Program: Background

- Purpose
  - To ensure prompt diagnosis and treatment
  - Collection and tabulation of reportable STDs

- Types of activities
  - Clinic services
  - Intervention
  - Planning
  - Promote and encourage safe and healthy behaviors
  - Assure the quality and accessibility of health services
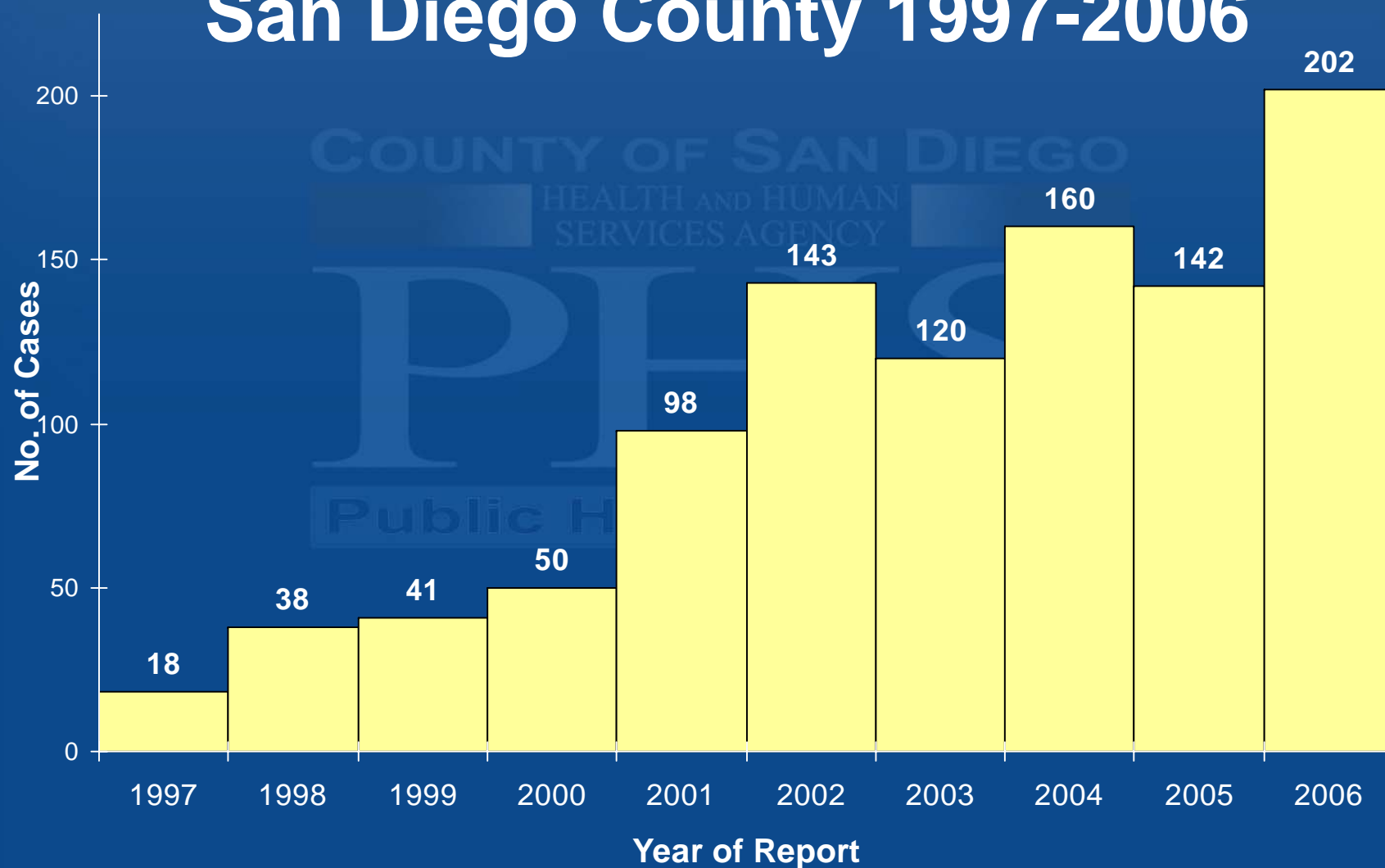
STD Data: Background

- **Data available since** 1986 for chlamydia & gonorrhea, 1992 for syphilis

- **Data comes from** state mandated reporting by providers and laboratories. Data available 4 months after end of calendar year

- **Database contains:** All reported cases of syphilis, gonorrhea and chlamydia from providers and laboratories in San Diego County
  - Number of cases
  - Demographics: age, gender, race/ethnicity, zip code

- **Caveat:** Data on race/ethnicity and zip code of residence are often missing

Example:
Gonococcal (GC) Infections

- Clinicians at County STD clinics noticed numerous rectal and pharyngeal GC infections among males

- Looked at gonorrhea data to see if this was the case

- Data showed that there were a number of rectal or pharyngeal GC positive cases among men seen at County STD clinics.
  - At private providers usually only urethral screening is done
  - It was estimated that 1/3 of rectal/pharyngeal GC cases would be missed if only a urethral test were done.

- Recommendation was made to physicians to screen for rectal and pharyngeal GC in men who report exposure or at minimum to presumptively treat if a test is not done. Presumptive treatment is particularly important for patients seen by private providers where testing of rectal sites by culture is done infrequently.

Reported Rectal or Pharyngeal GC Infections, Males, San Diego County 1997-2006

County of San Diego, Health and Human Services Agency, Public Health Services, Community Health Statistics

STD Data: Highlights

- Annual Fact Sheet online:
  - http://www2.sdcounty.ca.gov/hhsa/ServiceCategoryDetails.asp?ServiceAreaID=105

- Prevention & Control Programs:
  - 3-month re-screen of females who test positive for Chlamydia (CT)

- Surveillance:
  - STD rates (CT, GC and syphilis) continued to rise in 2006

- Special Research Projects:
  - Sampling to get more information on Gonorrhea
  - Improve STD reporting

- Planning & Priorities in Regions/County:
  - Location of STD clinics – based on STD rates

STD Data

Questions???

Tuberculosis (TB) Case Database

Marisa Moore, M.D., M.P.H.

Tuberculosis Control

TB Control Program: Background

- **Purpose**
  - Detect, control and prevent TB

- **Types of activities**
  - Surveillance
  - Diagnosis and treatment
  - Case management
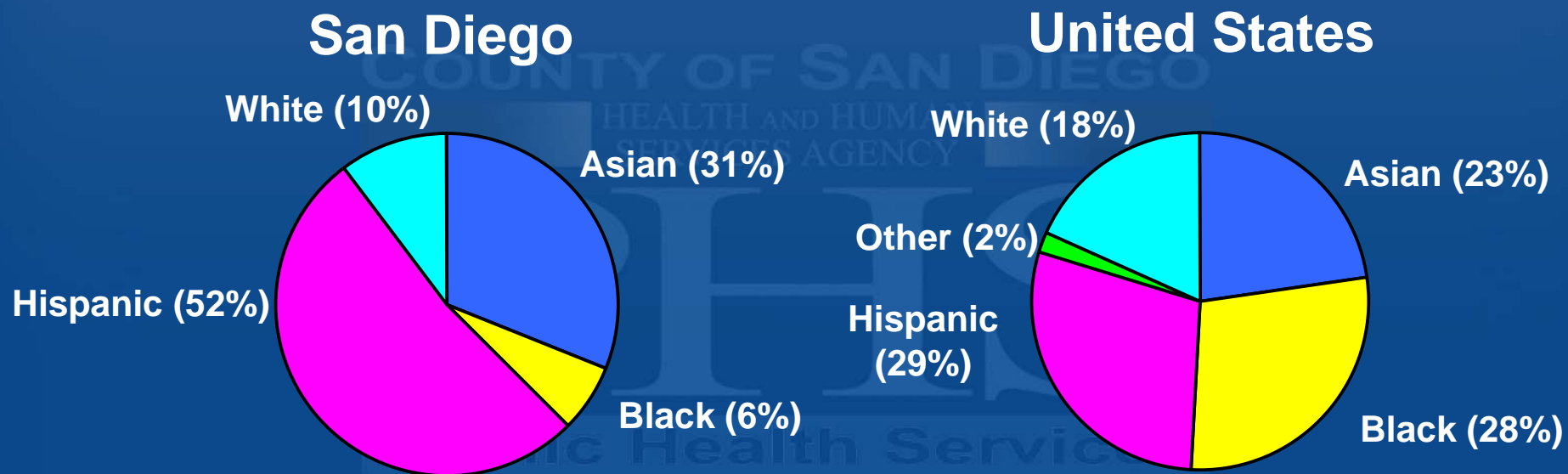 - Contact investigation
  - Education

TB Data: Background

- **Data available since** 1993

- **Data comes from**
  - Initially, mandatory report by providers and laboratories
  - Complete case report based on medical records and patient interview
  - Case confirmed using CDC surveillance case definition for TB

- **Database contains:**
  - New confirmed cases of TB in San Diego County
  - Demographics
  - Clinical presentation and drug resistance
  - Risk factors (e.g., drug use, homelessness)
  - Treatment outcome

- **Caveats:**
  - Does not include non-reported cases of TB
  - Small numbers may limit reporting of data less than county level

Example: TB

- Case reporting depends on access to medical care

- Case data: >50% of TB cases occur in Hispanics

- Developed pilot targeted media outreach project

- High yield case finding activity

- Currently repeat of media campaign with assessment to incorporate into program routine

Reported TB Cases Race/Ethnicity San Diego County vs. U.S., 2005

San Diego

White (10%)
Asian (31%)
Hispanic (52%)
Black (6%)

United States

White (18%)
Asian (23%)
Other (2%)
Hispanic (29%)
Black (28%)

*All races are non-Hispanic.
**Other includes American Indian/Alaska Native, Native Hawaiian/Other Pacific Islander and persons reporting two or more races.
U.S. data for 2005: provisional

County of San Diego, Health and Human Services Agency, Public Health Services, Community Health Statistics

TB Data: Highlights

- Fact sheet, trend tables, annual report online:
  - www.sandiegotbcontrol.org

- Prevention & Control Programs:
  - Evaluate success of control efforts
  - Plan targeted control and prevention interventions
- Surveillance:
  - TB case rate decrease in 2005, following level 5-year trend
  - More than 50% of cases occur in Hispanics
- Special Research Projects:
  - Frequent participant in multi-center studies with CDC and state
  - Recent studies include
    - Missed opportunities for prevention in children
    - Epidemiology of TB among foreign-born persons
- Planning & Priorities in Regions/County:
  - Ongoing transition to staffing redesign
  - Education efforts to high-risk populations and facilities

TB Data

Questions???

Childhood Lead Poisoning Prevention Program: Background

- ## Program established
  - Prevent lead poisoning among children under 21 years of age

- ## Types of activities
  - Community education and outreach (e.g. parents of young children, healthcare providers, and paint and hardware stores)
  - Healthcare provider training (e.g. fingersticks)
  - Case management of lead poisoned children
  - Collaboration efforts with other agencies (e.g. City of San Diego)
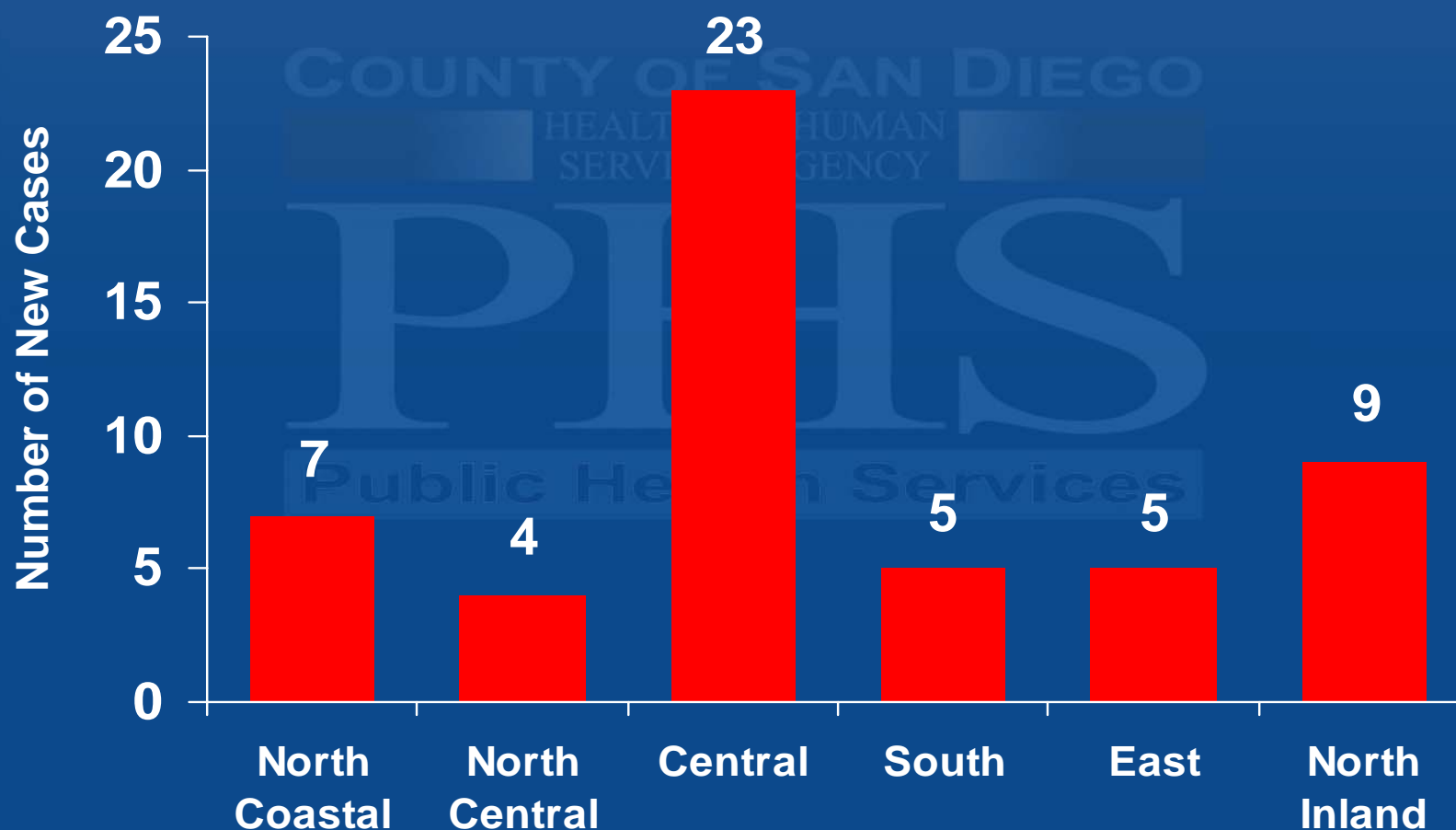
Lead Data: Background

- **Data available since** 1992

- **Data comes from:**
  - Mandatory laboratory reporting to state. Data returned to local CLPPP programs the month after receipt
  - RASSCLE database which contains managed case data

- **Database contains:**
  - All San Diego County children under 21 years of age who have been tested for blood lead levels
  - Demographics including age, gender, race/ethnicity, address*
  - Blood lead levels, sample type, healthcare provider
  - Possible sources of exposure (for managed cases)

- **Caveats:** Reporting is NOT complete, i.e. not all children are tested for lead poisoning. Laboratory reporting is not standardized.

*addresses are not available to public

Example: Managed Lead Poisoned Cases

- Highest number of lead poisoned children live in poor neighborhoods with old housing in need of repair (peeling paint, etc)

- Looked at geographical distribution of 2005 managed cases in San Diego County

- Data show that 23 (43%) managed cases live in Central Region

- Target Central Region for preventive and educational outreach

- Continue to follow latest managed case stats

Number of New San Diego County Lead Cases (BLL 14.5 ug/dL and Above), by HHSA Region, 2005

Lead Data: Highlights

- Online:
  - Local: http://www2.sdcounty.ca.gov/hhsa/ServiceDetails.asp?ServiceID=147
  - CA State: http://www.dhs.ca.gov/childlead/

- Prevention & Control Programs:
  - Educational outreach to low income families with young children
  - Healthcare provider education and training
  - Reduction of environmental lead hazards programs

- Surveillance:
  - Quantity and levels of lead tests ordered each month
  - Follow which healthcare providers order lead tests
  - Follow possible sources of lead exposure trends

- Special Research Projects:
  - Early Prevention Program (EPP): Home visitation to families with children whose blood lead levels are below State case definition

- Planning & Priorities in Regions/County:
  - CLPPP program activities are based on feedback from lead data

Lead Data

Questions???

Reportable Disease Data

Deirdre Browner, M.P.H.

Community Epidemiology

Community Epidemiology: Background

- **Branch established to**
  - Monitor, investigate and control communicable diseases
  - Rapidly detect and respond to bioterrorism events
  - Collect, analyze and report disease data

- **Types of activities**
  - Disease control activities
  - Outbreak investigations
  - Disease surveillance and Syndromic surveillance
  - Health Assessment

Reportable Disease Data: Background

- **Data available since** 1993 (similar data since 1987 in a different format**)**

- **Data comes from** mandatory reporting by providers and laboratories
  - Submitted as the case is diagnosed or up to 7 days after diagnosis depending on the diagnosis
  - Submitted directly to Public Health via phone, fax, mail or electronically using web-based reporting or automatic electronic laboratory reporting.

- **Database contains**
  - Any individual who has been diagnosed with a reportable disease in San Diego County and whose healthcare provider or lab submitted a Confidential Morbidity Report (CMR) to Public Health
  - Reportable diseases include infectious diseases (i.e. E.coli, measles), and poisoning from marine toxins (ciguatera, shellfish poisoning)

Reportable Disease Data: Background (continued)

- **Database contains**
  - Demographics: age, gender, race/ethnicity, zip code of residence
  - Disease, risk factors, date of diagnosis, lab test results
  - STD and TB reports are handled by those respective Branches within Public Health Services

- **Caveat:** Not all reportable diseases are diagnosed or reported, the patient must visit a health care provider and the provider must submit a Confidential Morbidity Report to be included in dataset. Noninfectious reportable diseases and conditions are reported on CMR, but not maintained by HHSA in this dataset.

Example:
E coli O157:H7 Outbreak

- 5 cases were reported to Community Epidemiology over a 3 day period

- The number of cases was well in excess of expected cases for a single week. Community Epidemiology began a foodborne outbreak investigation in conjunction with California Department of Health Services (CADHS).

- Investigation revealed an association with eating at a local restaurant. Epidemiology contacted Department of Environmental Health Food and Housing Branch. Implicated food items narrowed to lettuce used in several salads. Restaurant stopped serving lettuce and changed vendors. State began traceback investigation to determine source of contamination.

- In San Diego County close to 40 people were sickened. No cases occurred after the Restaurant stopped serving the implicated lettuce.

Reportable Disease Data:
E. Coli O157:H7 outbreak 2003

County of San Diego, Health and Human Services Agency, Public Health Services, Community Health Statistics
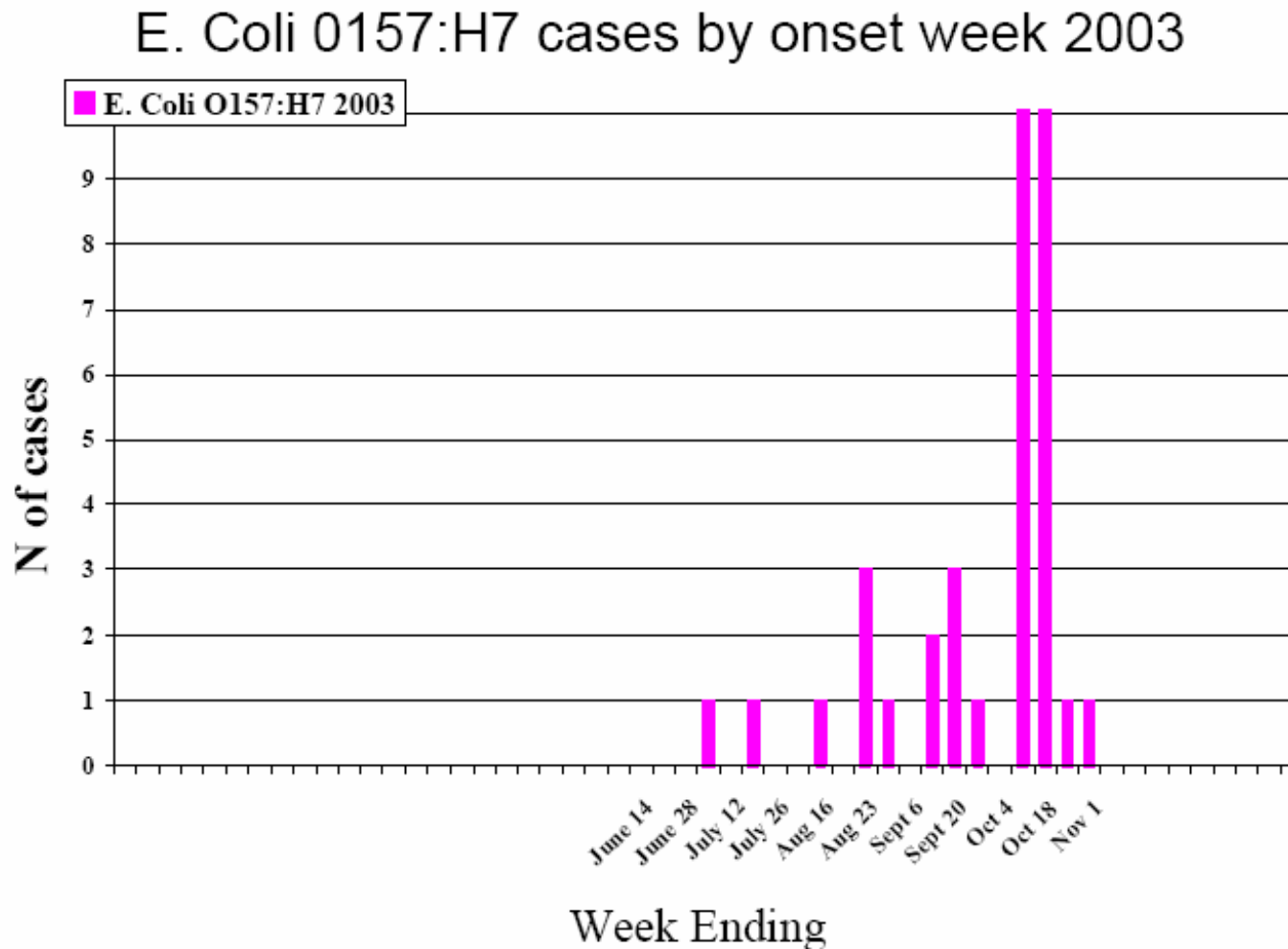
Reportable Disease Data: Highlights

- Annual tables and reports online:
  - www.sdepi.org

- Prevention & Control Programs:
  - Hand Hygiene for preschools
  - Disease-specific fact sheets focusing on prevention and treatment
- Surveillance:
  - Enteric Disease case rates higher than previous years
- Special Research Projects:
  - 2004 Community-Wide Antibiogram
- Planning & Priorities in Regions/County:
  - Implement electronic reporting with healthcare providers and labs
  - Collaborate with state and federal officials on changes in existing reporting regulations

Reportable Disease Data

Questions???

Survey Databases

California Health Interview Survey (CHIS) Data

Deirdre Browner, M.P.H.

Community Epidemiology

California Health Interview Survey (CHIS): Background

- The California Health Interview Survey (CHIS) is modeled after the NHIS and is a key source of information on general health and access to health care services in California.

- CHIS is the largest state health survey and one of the largest health surveys in the United States.

- Collaborative project of the UCLA Center for Health Policy Research, the California Department of Health Services, and the Public Health Institute.

CHIS Data: Background

- **Data available for** 2001, 2003 at county level only. 2005 contains some regional level data.

- **Data comes from** UCLA Center for Health Policy Research. The data are distributed after final processing is completed (approximately one year after the end of the survey)

- **Survey:** CHIS uses stratified random sampling techniques to create estimates for the County
  - Demographics, housing, employment, health insurance, public program eligibility
  - Health Behaviors: diet, exercise, access/use of health care, health screenings
  - Health Status: height, weight, health conditions, general health, dental health

- **Caveat:** Not all questions appear in every year of the survey and data can be coded differently between survey years leading to limited comparability

Example: Childhood Obesity

- Several community leaders express a concern about rising rates of Childhood Obesity

- CHIS data for BMI for adolescents (12-18) shows the baseline in the percentage that are at or above the 95th percentile for age and gender for 2003

- County has developed Childhood Obesity Action Plan, working with CHIP and other community partners to address childhood obesity

- County will continue to monitor rates

CHIS Data: Childhood Obesity

CHIS, Overwieght & Obese Adolescents (12-18), State and County, 2003

Source: CHIS, 2003

CA — 15.3%
SDCo — 19.1%

County of San Diego, Health and Human Services Agency, Public Health Services, Community Health Statistics

CHIS Data: Highlights

- Annual report online:
  - http://www.healthpolicy.ucla.edu/pubs/pubList.asp
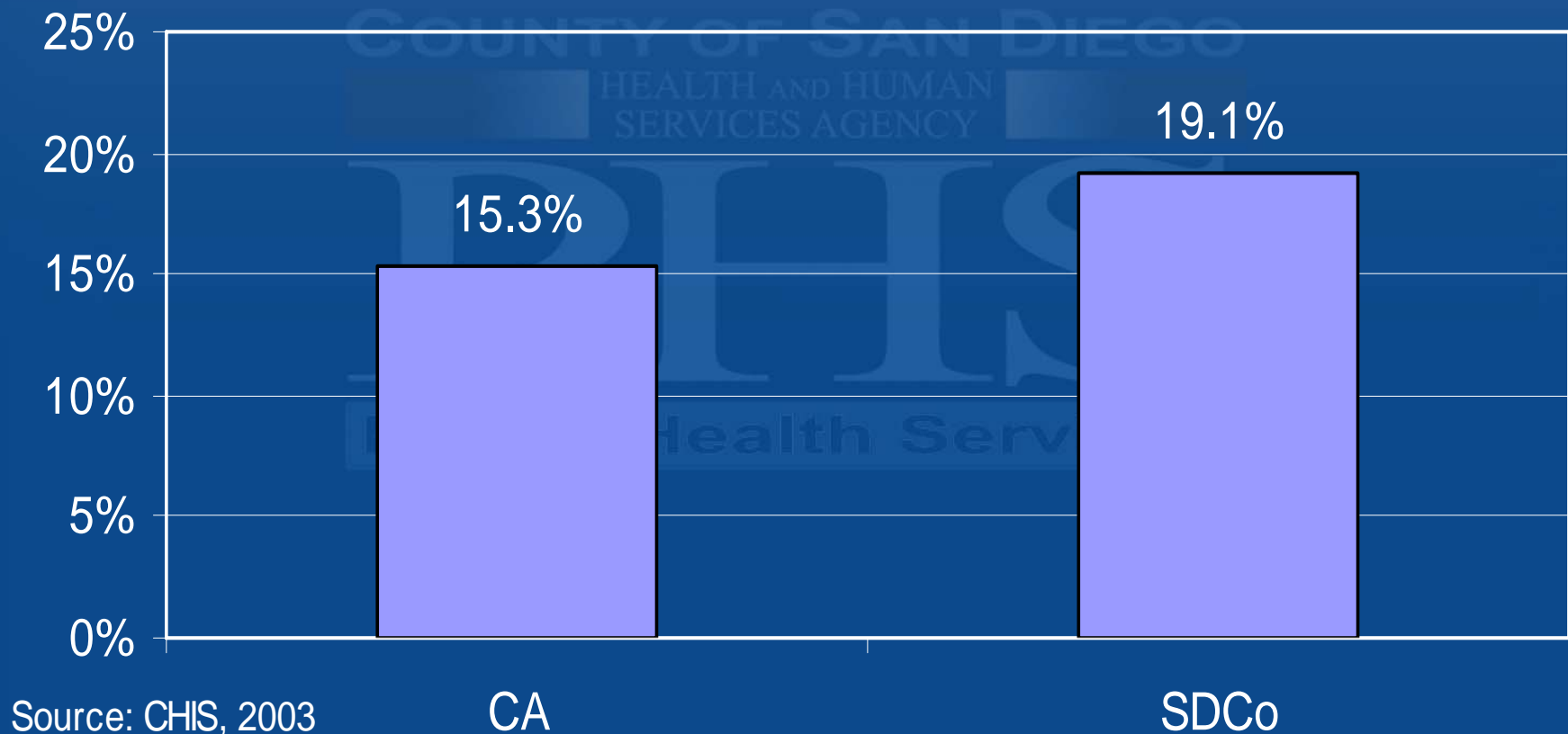
- An over-sample of San Diego County in 2005 will provide HHSA regional level data
- First 5 San Diego used CHIS health insurance and oral health data in developing new, local requests for proposals. First 5 San Diego used CHIS data in its planning to allocate $6 million for efforts to enroll uninsured eligible children in existing programs.
- The National Latino Research Center at Cal State San Marcos used data from CHIS in its publication, Health Disparities in San Diego County: Immigration and Citizenship.
- CHIS data was used in the Asian and Pacific Islander American Case Study: The Diabetic Vietnamese Population of San Diego County.
- SD Community Health Improvement Partners Report "Charting the Course", 2004

CHIS Data

Questions???

Youth Risk Behavior Survey (YRBS) Data

Lacey Hicks, M.P.H.

Community Epidemiology

Youth Risk Behavior Survey: Background

- **School-based Survey:**
  - National survey is conducted by CDC
    - Representative of all high school students in public and private schools in US
  - State and local surveys are conducted by departments of health & education
    - San Diego City Unified School District sample is representative of all students in grades 9-12 attending schools in this jurisdiction

- **The YRBS questionnaire was developed to:**
  - Determine the prevalence of behaviors that put teens at risk for disease, injury and death
  - Assess whether health risk behaviors change over time
  - Examine the co-occurrence of health risk behaviors
  - Provide comparable data among subpopulations of youth
  - Provide comparable national, state, and local data
  - Monitor progress toward achieving the Healthy People 2010 objectives and other program objectives

YRBS Local Data: Background

- **Data available since** 1991

- **Data comes from** survey every 2 years in spring, data available in fall

- **Survey:**
  - Sample of 9th through 12th grade students
  - San Diego City Schools, No geographic identifiers (i.e. no school name)
  - Voluntary & anonymous
  - 2005: 1,695 students in 33 public high schools in SD Unified School District

- **Behaviors:**
  - Resulting in intentional and unintentional injuries
  - Alcohol and other drug use
  - Tobacco use
  - Sexual behaviors that result in HIV infection, other STDs, and unintended pregnancies
  - Dietary behaviors
  - Physical activity

Example: Suicide Ideation and Attempts

- Risk Behavior: Seriously considered attempting suicide, 26.7% in 1995

- Yellow Ribbon Suicide Prevention Campaign, Life Skills Training, and other programs through the schools' counseling departments

- In 2005, 17.5% of students in San Diego had seriously considered attempting suicide during the 12 months preceding the survey

- The behavior decreased significantly over time, controlling for changes in distributions by sex, race/ethnicity and grade

Suicide Ideation and Attempts
San Diego Youth Risk Behavior Survey, 1991-2005
Percentage of students who seriously considered attempting suicide during the past 12 months, by year

Legend:
- Total *
- 2003 National Data (16.9%)

Data by year:
- 1991: 28.2
- 1993: 25.7
- 1995: 26.7
- 1997: 22.7
- 1999: 22.3
- 2001: 21
- 2003: 19.4
- 2005: 17.5

Y-axis: Percent (%)
X-axis: Year of Survey
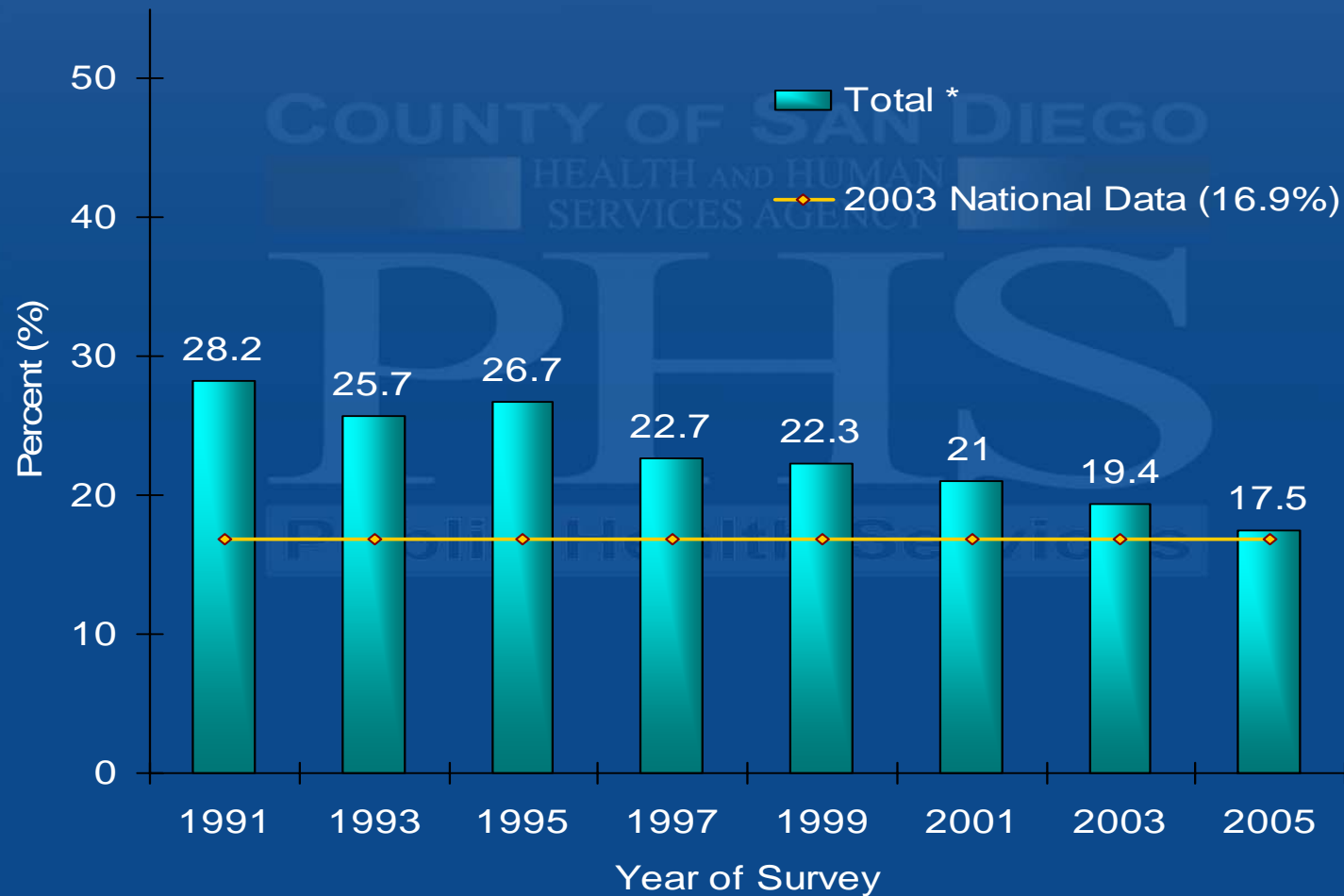
YRBS Data: Highlights

- **Reports:**
  - Available at SD City Schools P.E. Health & Athletics Department
  - (619) 725-712; online at www.sandi.net/depts/sex_ed.

- **Prevention & Control Programs:**
  - Comprehensive Life Skills Programs (alcohol, tobacco and other drugs, anxiety & anger, etc); other programs in place through the schools' counseling departments
  - Track the effectiveness of current interventions

- **Surveillance:**
  - The district is able to view trends from year-to-year and address issues of concern

- **Planning & Priorities:**
  - Based on the data, the school district determines program direction, needed policy and student intervention

YRBS Data

Questions???

Learn to Use Public Health Data
Preview of Workshop II

Leslie Upledger Ray, Ph.D.(c) M.P.H., M.P.P.A., M.A.

EMS, CHS

Many Uses for Data

- Education
- Policy
- Grants
- Needs Assessment
- Establishing Priorities
- Performance Measures
- Program Evaluation
- Prevention Activities

Workshop Topics

- Types of Databases
- Data Measures
  - Analyzing data (ie how to calculate rate…)
  - Interpretation/Meaning
  - Presenting Data/Results
- Outcome Measures
- Special Considerations
- Program Evaluation
- Asking questions & finding data

Special Considerations

- Choosing measures

- Geographic units

- Presenting results, targeting message

- Ways to present information, format

- Limitations

- Issue, small numbers

- Footnotes

- Interpretation

Data Measures

- ## Numbers tell you how many
  - 25 children under age 15 in San Diego died of cancer in 2001

- ## Percents tell you a proportion of the whole
  - 90% of attendees who ate potato salad at a picnic experienced symptoms of food poisoning

- ## Rates tell you how many per a given population and allow you to compare year to year or group to group
  - The rate of children injured in MVC dropped from 321.9 per 100,000 to 295.2 per 100,000 after the implementation of the program

Choosing Measures

- What is your goal ?
- Can it be measured ?
- Is the data available ?

- Use data appropriate to purpose –time & place
  - During at risk periods
  - Location of potential occurrence

Presenting Results

- What is your message?

  "Child pedestrians are at risk of injury around their schools…"

  "…therefore we need a traffic light"

  – OR --

  "…therefore we need to teach them to be safer pedestrians"

- Who is your audience?

  – Traffic engineering department vs. PTA, school

- How do you reach your intended audience?

  – Use units familiar to audience

    - Football field vs. 120 yards
    - 1 classroom vs. 30 children

Presenting Results

- Ways to present information
  - Table
  - Chart / Graph
  - Narrative
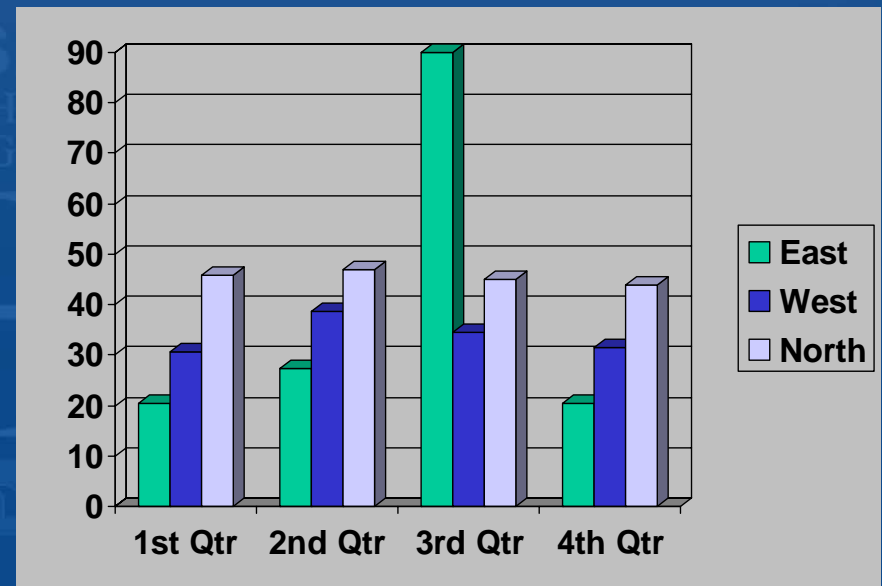
	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr
East	20.4	27.4	90	20.4
West	30.6	38.6	34.6	31.6
North	45.9	46.9	45	43.9

Sample Interpretation #1

- "Among _____(who) in the study, ages _____, in _____ area (where), for _____ years (when), _____% have _____ characteristic (what)."

- "Among infants who died (under 1 yr), in San Diego County, for the 2001 birth cohort, x% had low birth weight."

Sample Interpretation #2

- "Compared to _____(who1) in ____ area (where), for ____ years (when), _____ (who2) have _____amount (magnitude) _____more/less (direction) _____ characteristic (what)."

- "Compared to <u>women</u> of the same age in <u>San Diego County</u> <u>for fy 99/00</u>, <u>men</u> have <u>more than 6 times</u> <u>higher</u> <u>rates of suicide</u>, according to Medical Examiner data."

Limitations

- Who's missing from data
  - Only those included in database, not everyone

- What's missing from data
  - i.e. Don't have age of diagnosis

- Bias
  - i.e. Pharmaceutical study sponsored study

Issue: Small Numbers

- Do not calculate rates on < 5 events.
  - Produces unstable rates
  - Instead, aggregate 3 successive years of data

3-year Rate =

$$\frac{\text{(events in year 1 + events in year 2 + events in year 3)}}{\text{Population year 1 + population year 2 + population year 3}} \times 100{,}000$$

The Essential Footnote

- Always document the source of your data. Include:
  - the source of the data
  - the time frame it represents
  - the name of the database
  - note on who modified data or calculated statistics

- Many databases offer suggested data source statements (suggested citation), use them

- The most important purpose of a footnote is to ensure that you will be able to figure out how you got the data next year when you have to reproduce it

Community Health Statistics Unit
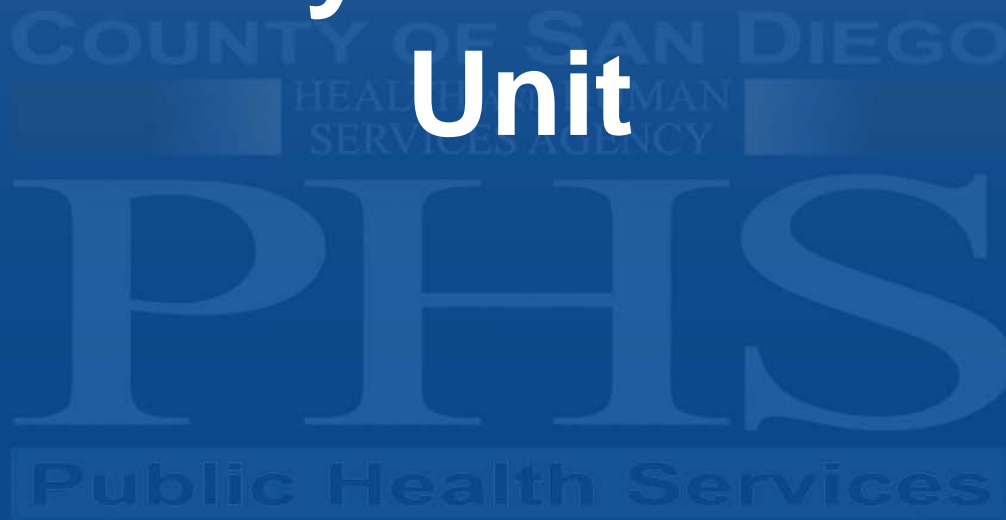
Mona Thabit, M.P.H.

Julie Cooke, M.P.H.

Role of The Community Health Statistics (CHS) Unit

- "One Stop Shop" for health data
- Data Requests (619) 285-6479
- CHS Unit Website:
  www.sdhealthstatistics.com

Examples of Data Requests

- Cancer, diabetes, heart disease and HIV rates for a regional hospital to prioritize services to better serve community needs (Online Community Profiles)

- For youth, the number of deaths, suicides, ADS usage, teen births and firearm injuries, for specific zip codes, to develop an intervention for at risk youth (EMS, ADS and Death data)

- Number of women in San Diego County who are mail ordered or brokered brides, for coursework and potential future funding (federal report)

Navigating County of San Diego Web

- Go to your favorite, easy to remember County site
  - i.e. www.sdhealthstatistics.com

- Click on Public Health in grey at top
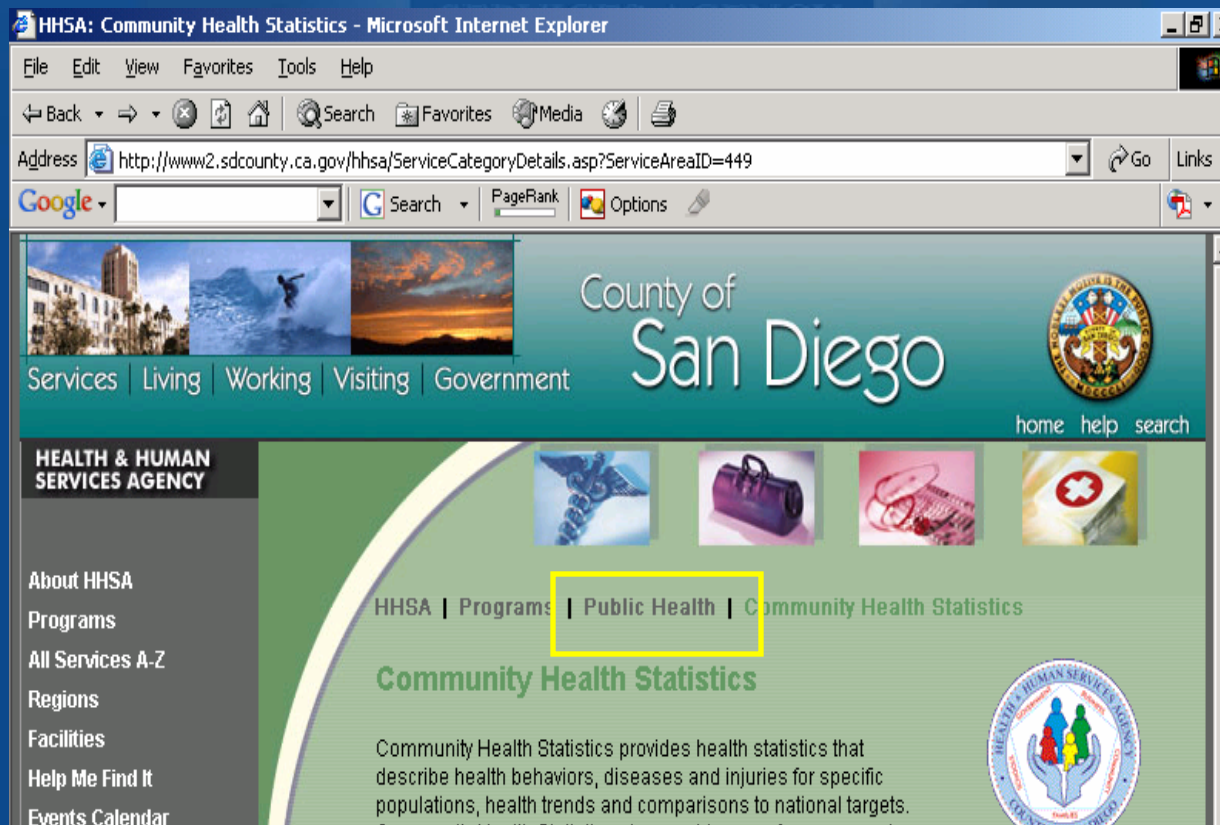
County of San Diego, Health and Human Services Agency, Public Health Services, Community Health Statistics

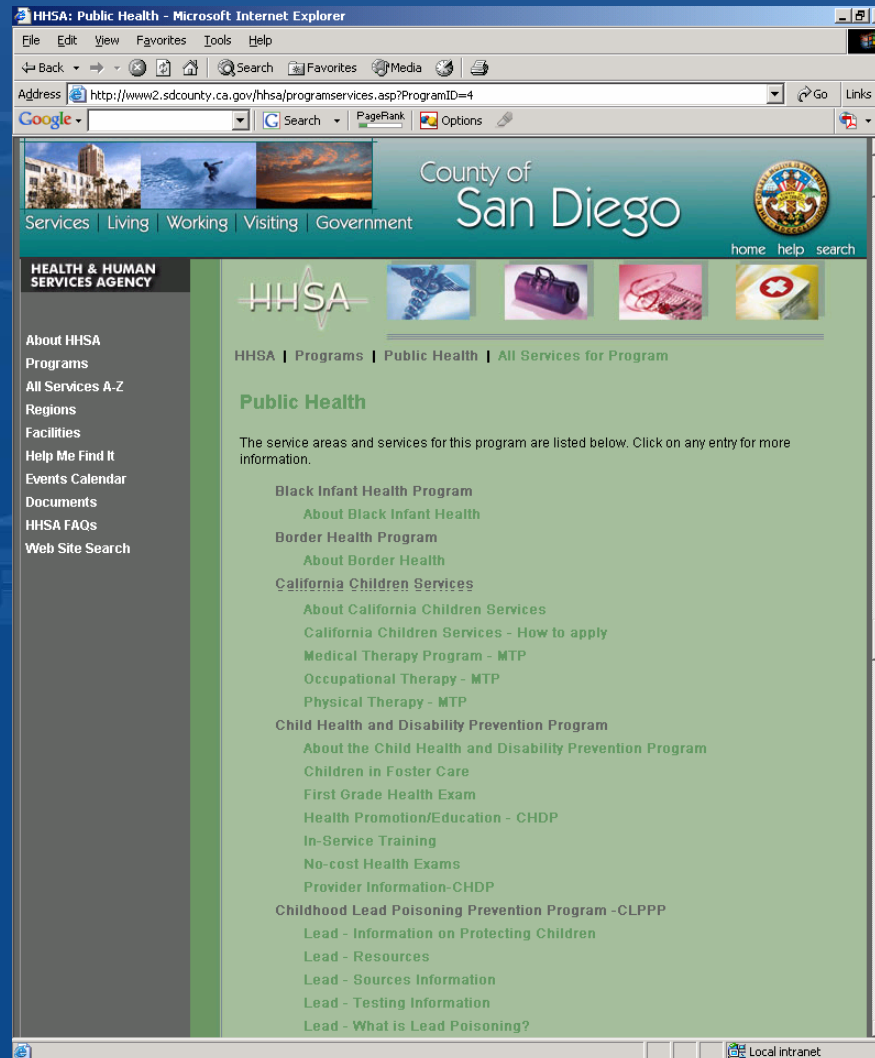# Navigating County of San Diego Web

Public Heath Services
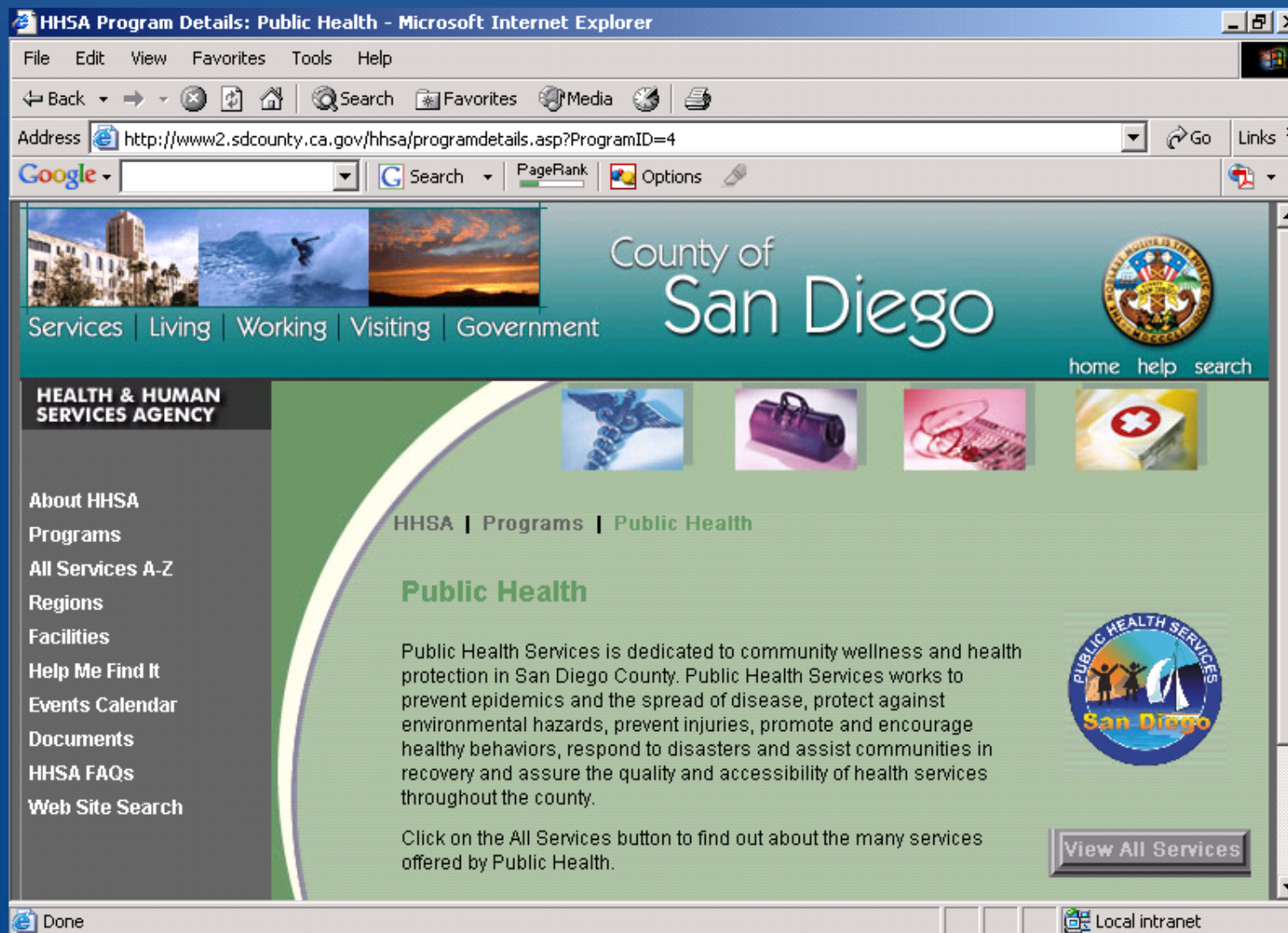
Select "View All Services"

Navigating County of San Diego Web

Full listing of all Public Heath Services web pages

Scroll down to find the webpage you want…

Navigating County of San Diego Web

Questions?

- Evaluations – please fill out!
- Questions???

Contact Information:

Community Health Statistics Unit

6255 Mission Gorge Road

San Diego, CA 92120

www.sdhealthstatistics.com

Data Requests (619) 285-6479